Distribution of Quota Registrants in 1995: Program Type, Grade Placement, Visual Acuity, Reading Medium, and Age

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Abstract

Legally blind students are registered with the American Printing House for the Blind (APH) annually for purposes of the federal Act to Promote the Education of the Blind of 1879. This census is used to determine the number of eligible students enrolled in various schools and agencies in order to allocate funds to be used for the procurement of books and educational materials produced by the APH for the visually handicapped. Periodically in-depth studies of these data are conducted to discern trends and characteristics of this relatively small, yet diverse, population. This study examines the data compiled from the 1995 Federal Quota Registration. Additional attention is given to comparing the information reported in this study to the two most recent in-depth studies by Wright (1988) and Poppe (1991). As of January 3, 1995, a total of 54,763 legally blind students were registered. Several deletions and alterations were made to this original Registration population to eliminate ambiguous data; consequently, the current analysis was based on the remaining 52,347 students, or 95.6% of the total number registered. A table-by-table discussion details the distribution of the study's population of registrants among categories defining program type, grade placement, visual acuity, and primary reading medium; average age is also reported. Generally, the majority (85.7%) of students were enrolled in day school programs as reported through State Departments of Education; 14.3% were enrolled in residential schools, rehabilitation agencies, and facilities for the multihandicapped. Slightly over one-fifth (21.2%) of the students occupied early childhood grade placements; 31.5% were enrolled in grades 1-12; 14.7% were adults; 27.8% were other registrants; and the remaining registrants were classified as academic nongraded students, postgraduates, and vocational students. Almost half (48.6%) of the total number in the study had profound visual impairments; 42.8% had moderately severe visual acuities which fell between 20/200 and 8/200; and 8.6% had acuities within the intermediate range indicating severe visual impairments. Slightly over one-fourth (25.4%) of the total population were visual readers; 24.8% were prereaders; 9.1% were braille readers; and 7.2% were auditory readers. However, the largest percentage (33.5%) lacked a functional reading mode and were thus defined as nonreaders.

Distribution of Quota Registrants in 1995: Program Type, Grade Placement, Visual Acuity, Reading Medium, and Age

Each year the American Printing House for the Blind, in connection with responsibilities established by the federal Act to Promote the Education of the Blind of 1879, conducts a census of the nation's legally blind students. Information gathered through the census (termed "Federal Quota Registration") is used to determine the number of eligible students enrolled in various schools and agencies in order to allocate funds to be used for the procurement of books and educational materials produced by the American Printing House for the Blind. In order to be eligible for registration in the Federal Quota Program, a student must:

- meet the definition of legal blindness--"central visual acuity of 20//200 or less in the better eye with correcting glasses or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees."

- be enrolled in a formally organized public or private, nonprofit educational program of less than college level.

- be enrolled with the registering school or agency on the first Monday in January of the current year.[1]

- have a written individual education plan or other written education plan.[2]

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[1] Because Monday, January 2, 1995 was a legal holiday, enrollment in an educational program on Tuesday, January 3, 1995 qualified eligible students for the registration in the Federal Quota Program.

[2] The Board of Trustees of the American Printing House for the Blind, at its 1985 Annual Meeting, approved a resolution which requires that students in education programs--but not enrolled in grade 12 or below--must "have a written individual education plan or other written education plan and be enrolled in and attend, on a regular basis, an instructional program of at least 20 hours of instruction per week. Social and leisure programs do not qualify as instructional programs."

The information collected through the Federal Quota Registration also permits an examination of the distribution and characteristics of the surveyed population. For each eligible student registered, the following data are collected:

- Student's name
- Student's date of birth
- Name of enrolling school or agency
- Student's grade placement
- Degree of vision in each eye with correction as reported by an eye specialist
- Primary reading medium used by the student

The American Printing House for the Blind issues a brief report each year detailing the distribution of legally blind students according to grade placement, enrolling school/agency, and reading medium. Less frequently, more in-depth studies are conducted to discern trends within the population and to report general characteristics of pupils requiring materials and services for the visually impaired. Such studies of the past reflect the Registration figures of 1960, 1963, 1966, 1969, 1972, 1976, 1979, 1987, and 1990 as prepared by Jones (1961), Nolan (1964, 1967), Nolan & Bott (1971), Bunuan (1972), Willis (1978, 1982), Wright (1988), and Poppe (1991), respectively. The study which follows is a detailed examination of the data compiled from the 1995 Federal Quota Registration. Additional attention is given to comparing the information examined in this study to the two most recent in-depth studies by Wright (1988) and Poppe (1991); such an interstudy comparison was not feasible for Wright (1988) due to some irregularities in how the data were reported to the American Printing House for the Blind during 1987 and previous years. Categories of information requested are since more clearly defined and mutually exclusive, allowing for more direct comparisons. For example, in 1987 the adult student category was broadened to include all adult students over typical school age, while all other categories were restricted to preschool and school age pupils. Prior to 1987, as Wright (1988) reports, "the postgraduate and other registrant categories remained open to adults who met the criteria for these placements" (p.5).

As of January 3, 1995, a total of 54,763 legally blind students were registered with the American Printing House for the Blind. The distribution of these registrants across all grade placements is displayed in Table 1; the numbers of students reported within each of these grade placement categories during the previous 8 years are also given. This period from 1987 to 1995, in relation to the Federal Quota Registration, represented a continuity of unaltered reporting code definitions. Brief descriptions of all student placement categories as they relate to school/agency type (4 categories), grade placement (20 categories), reading medium (5 categories), and visual acuity (9 categories) are appended.

In preparation for the analysis of the 1995 Registration data, several deletions were necessary to make the current study comparable to Wright's (1988) and Poppe's (1991) in-depth examinations of the 1987 and 1990 Registrations, respectively, as well as to eliminate ambiguous data in an effort to make the study more experimentally sound. Omission of a student from the total population was warranted if: (a) the student was reported by the Hadley School for the Blind, which primarily offers adult instruction by correspondence (1,343 pupils were omitted based upon this provision); (b) if a student was reported with a visual acuity in category X (field restriction) in one or both eyes making it difficult to categorize his/her visual acuity for comparison with other students (903 students were omitted based upon this provision); or (c) if a student with a "better eye" category of VIII (light projection or perception) or IX (totally blind) was reported using a visual reading medium, indicating a error in the application of reporting codes or in reported visual acuity (170 students were omitted based upon this provision). Consequently, a total of 2,416 students were deleted from the final 1995 Registration figures. Thus, the current analysis is based on the data of the remaining 52,347 students or 95.6% of the total number registered in 1995.

Aside from the omissions described above, all students were assigned to one of nine categories based upon the reported amount of vision in the better eye. These categories ranged from I (a visual acuity of 20/200 to 18/200) to IX (total blindness). The boundaries of each visual acuity category are defined in the Appendix.

To reiterate, some differences exist between the population upon which many of the tables in this report were calculated and the entire population of legally blind students registered in 1995 with the American Printing House for the Blind. Tables 2 through 20 included in this report reflect these modified figures.

Table 1

Distribution of Registrants by Grade Placement, 1987-1995

Table 1 displays the distribution of quota registrants according to grade placement for 1987-1995. This span of time reflects a continuity of unaltered reporting code definitions. Definitions of grade placement categories as well as other classifications pertaining to program type, reading medium, and visual acuity have remained constant since Wright's in-depth study of the 1987 Quota Registration. As a result, direct comparisons can be made between recent Registration populations.

In 1995, a total of 54,763 students were registered with the American Printing House for the Blind. This total represents a 26.9% increase since 1987 in the total number of students who were eligible for federal quota funds. The infant population, which composed 5.9% of the Registration in 1988 and as much as 7.7% total Registration in 1993, increased 60.0% over the years shown in Table 1; only a slight decrease of 2.8% in 1994 disrupted an otherwise steady growth in this earliest grade placement. Preschoolers made up a somewhat greater portion of the Registration population from 1987 to 1995 than did infants; between 8.6% and 10.1% of the total number of quota registrants between these years were in preschool programs. As a group, preschoolers experienced their largest growth between 1987 and 1988--a 14.0% increase. With the exception of 1987, students reported in academic grades K-12 represented the largest group registered over the past 8 years. [In 1987, other registrants composed a slightly larger percentage (36.0%) of the total population than those in kindergarten through secondary grades.] From 1987 to 1995, the numbers of K-12 students ranged between 32.6% and 35.3% of the total population of eligible registrants; combined these grade placements experienced a 22.7% growth in past 8 years. Over the years, academic nongraded students have constituted a relatively small, but stable percentage--between 3.4% and 4.5%--of the total population of registrants. A continual increase in the number of students working to establish grade placement in an academic program was interrupted by a 1.5% decrease between 1994 and 1995.

Representing no more than .2% of the total Registration from 1987 to 1995, the postgraduate population demonstrated an erratic growth pattern. In 1987 they totalled 91, but by 1993 these students dwindled to 14. Continuing the trend of ups and downs in the total number of registrants classified in this grade placement category, the 1995 Registration revealed over 3.5 times as many postgraduate students than reported in 1993. Conversely, students of school age in vocational training experienced an unwavering decline from a total of 260 in 1987 to a total of 128 in 1995. This reduction translates into a 50.8% decrease in the total number of vocational students registered through the American Printing House for the Blind over the past 8 years. Since 1988, other registrants have consistently represented the second largest group of registrants reported between 26.8% and 30.8% of the total population). The size of the OR population has remained fairly stable from 1988 to 1995, experiencing only minimal gains and losses throughout those years; their largest decrease of 13.3% was witnessed between 1987 and 1988. Lastly, adult students totalled 4,280 in 1987, making up only 9.9% of the total population. However, by 1988 they numbered 7,615 (i.e., 17.0% of the total Registration), experiencing a 77.9% increase in a single year. Most likely this sharp increase in adults reported in 1988 was the result of an improved application of reporting codes; in 1987, many students beyond *typical* school age were misreported as other registrants rather than as adult students. From 1989 to 1995, the adult population ranged from 16.0% and 18.5% of the total Registration.

With this perspective on the place of the 1995 Registration figures among data from previous years, Tables 3-20 further illustrate the distribution of registrants during 1995 according to program type, grade placement, reading medium, visual acuity, and age. These tables, which reflect the modified figures following deletions made for the current study, provide a means by which characteristics of the given population and developing trends can be gleaned.

Table 2

Grade Placement

Table 2 presents the number of students classified within each grade placement category in 1995 following omissions made for the current study. Students enrolled in infant, preschool, and kindergarten programs accounted, respectively, for 7.9%, 10.5% and 2.9% of the total registrant population. Combining the numbers of infants, preschoolers, and kindergarteners reveals that 21.2% of the total number of students fell within this early childhood range. These young students occupied a similar percentage of the total population in recent years as reported by Wright (1988) and Poppe (1991); in 1987, they composed 18.1% of the total number of students and in 1990, 20.0%.

An even distribution of students within grades 1-12 occurred in 1995. Between 1,063 and 1,546 registrants (2.0%-3.0% of the total number in the study) were reported in each of these academic grades. As a group, students in primary through secondary grades represented 31.5% of the total population. Generally, with each successive grade fewer students were reported.

Other registrants composed the second largest population; these students made up 27.8% of the total Registration. As defined in the Appendix, these are students in prevocational classes for the multihandicapped or nonacademic students in nongraded classes. A detailed profile of these OR students according to age and program type is presented in Table 18.

The adult student category originated in 1987 as reported by Wright (1988). This grade placement classification is appropriate for all registrants beyond *typical* school age. The 1995 figures reveal that 14.7% of the population were adult students--a percentage identical to that reported 5 years ago. Academic nongraded students constituted a much smaller portion of the total registration; only 4.5% of all those registered in 1995 were working to establish an academic grade placement. The remaining .2% of the total population were vocational students.

Table 3

Program Type

In order to qualify for textbooks and educational aids produced by the American Printing House for the Blind, legally blind students must be registered through one of four types of programs maintained on the APH Student Registration System (SRS) for record keeping purposes. All residential schools for the blind form one type of account. Another account is composed of all schools and agencies reported through State Departments of Education, including public school programs, private/nonprofit schools, and a small number of programs offering rehabilitative assistance or services to the multihandicapped. These programs are sometimes referred to as "day schools" throughout this study due to the fact that most are nonresidential schools. A third account is formed by rehabilitation agencies and a fourth by facilities for the multihandicapped. A student cannot be registered by two accounts; if a student is attending two programs, the agency providing the major portion of educational services is usually the account with which the student is registered.

Table 3 indicates the number of students enrolled in each of the four program types during 1995. As reported in earlier studies by Wright (1988) and Poppe (1991), State Departments of Education served the majority of the quota registrants; in 1995, 85.7% of the total number of students were instructed in day schools. Residential schools continued to experience a slight, but steady decline over recent years in the percentage of students served; 8.5% of the students were registered through this account in 1995 compared to 10.4% of the total registrant population in 1987 and 9.2% of the total registrant population in 1990. The percentage of students served in rehabilitation programs also dwindled over recent years; in 1995 rehabilitation programs served 2.2% of all quota students compared to 3.1% in 1987 and 2.7% in 1990. Facilities for the multihandicapped served 3.6% of the total population, up from 2.8% five years ago. Figure 1 further illustrates the distribution of the 1995 quota registrants by program type, clearly showing the predominance of those served in day schools.

Table 4

Grade Placement x Program Type

Table 4 displays the distribution of registrants according to grade placement and type of enrolling school or agency. Students within the early childhood range (i.e., infants, preschoolers, and kindergarteners) constituted 21.5% of the total number of students registered through State Departments of Education, 25.7% of those in residential schools, 25.1% of those in rehabilitation agencies, and a mere 1.1% of those served in facilities for the multihandicapped. The interaction between grade placement and program type also indicates that day schools were the main providers of education to these young children: 86.9% of all those in infant, preschool, and kindergarten placements were enrolled in either public schools or private/nonprofit programs. Stated more precisely, 78.9% of all registrants in infant programs, 91.2% of students in preschool programs, and 93.6% of pupils in kindergarten were reported through State Departments of Education. In contrast, only 15.3%, 7.5%, and 6.3% of students in these respective grade placements were enrolled in residential schools. Over the past 5 years, the total early childhood population served by day schools increased 23.3%; residential schools also experienced an increase of 34.9% in the total number of young students they served. Notably, there were over 2 times as many infants registered through residential schools in 1995 than in 1990 (283 in 1990 versus 631 in 1995). Rehabilitation agencies, conversely, witnessed a 27.3% decrease since 1990 in the number of infants, preschoolers, and kindergarteners they registered; the majority (79.9%) of all early childhood students in rehabilitations were infants.

Students in grades 1-12 composed nearly equal percentages of the total number of registrants in each type of school in 1995: 33.4% of day school students and 33.2% of residential students were in primary through secondary grades. An even distribution of registrants within these academic grade placements was also evident in both day and residential school populations: between 2.0%-3.2% of day school students and between 1.8%-3.7% of residential students fell within grades 1-12. Day students outnumbered residential students approximately 15 to 1 in grades 1-6; grades 7-12 contained fewer day versus residential students, averaging approximately 7 day students for every student enrolled in a residential school program. Whereas the ratio of day students to residential students in grades 7-12 mimics that reported 5 years ago by Poppe (1991), the ratio of day students to residential students in grades 1-6 indicates a greater disparity than the ratio reported for this population in 1990; in 1990, the ratio of students in these lower academic grades was approximately 12 day school pupils for every residential pupil.

Students classified as other registrants constituted virtually equal percentages of the total number of students registered in day and residential schools: 29.1% of all day school pupils and 29.0% of all residential students were reported in this category. Comparing the total numbers of OR students within each of these program types to those reported for the 1990 Registration reveals a 10.0% decrease in the total population of other registrants in residential schools and an 8.8% increase in the total OR population in day school programs. Fully 89.9% of the students in the other registrant category primarily received instruction in day schools; 8.8% of OR students were enrolled in residential schools. Consequently, the number of OR students in day schools outnumbered the OR students in residential schools 10.2 to 1 in 1995; in 1990 this ratio was lower at 8.4 to 1. Most (1.2%) of the remaining other registrants were served in facilities for the multihandicapped. The total number of these students dwindled from 858 in 1987 to 293 in 1990 to 171 in 1995, indicating a 41.6% decrease over the past 5 years and a significant 80.1% decrease since Wright's in-depth study of the 1987 Quota Registration. In 1995, OR students composed 9.1% of the total number of registrants served in facilities for the multihandicapped.

Adult students composed 11.2% of all registered day school students and 3.6% of all residential students reported in 1995. Expectedly, the majority (72.3%) of all students registered by rehabilitation agencies were described as adult students; the bulk of those served in facilities for the multihandicapped (88.8%) also fell within this older classification. The distribution of adult students across the four program types shows that over half (65.3%) were reported through State Departments of Education. After serving almost equal percentages (13.5% and 12.4%) of the adult student population in 1990, facilities for the multihandicapped and rehabilitation agencies reported dissimilar percentages of adult students (21.7% and 10.9%, respectively) in 1995. Facilities for the multihandicapped, in particular, witnessed a growth from 912 adult students served in their programs in 1990 to a total of 1,676 adult students in 1995--an 83.8% increase overall. The remaining 2.0% of the adult population were educated in residential schools.

Similar small percentages of day and residential students were classified as academic nongraded--4.5% and 7.6% of the total number of students registered in each respective program type. Fully 85.5% of all academic nongraded students were reported through State Departments of Education; 14.3% were enrolled in residential schools; and less than 1.0% were registered by either facilities for the multihandicapped and rehabilitation programs. For every academic nongraded student instructed in residential schools, there were 6 such students enrolled in public or private/non-profit schools; this ratio varied little from that gleaned from the 1990 Registration figures.

Vocational students were also enrolled primarily in day school programs; 23.8% were in residential schools; and 18.3% were found in rehabilitation agencies. Postgraduates, the smallest portion of the total 1995 population of legally blind registrants, were served by either day schools or residential schools (53.3% and 46.7%, respectively).

Table 5

Reading Medium

A primary reading medium is reported for each quota registrant. The five reading medium categories are: visual (use of regular print or large type), braille, auditory (use of a reader or auditory materials), prereader (use of readiness level materials of any type), or nonreader (students who do not fall into any of the other reading media categories). Table 5 indicates that 25.4% of the total number of students included in this study read primarily print or large type; 9.1% were braille readers, and a smaller percentage (7.2%) were auditory readers. Nearly one-fourth of the students (24.8%) were prereaders. It can be assumed that most of these prereaders were infants and preschoolers working on a readiness level; a portion of this population might also be adventitiously blind older students or adults just beginning braille instruction. After sharing an almost equal percentage of the total population with visual readers in 1990, nonreaders formed 33.5%--the majority--of the total registrant population in 1995. Figure 2 further illustrates the predominance of nonreaders among the visually impaired population.

Table 6

Program Type x Reading Medium

Table 6 depicts the distribution of registrants according to primary reading medium and program type as reported in 1995. Figures indicate that there were over 3.5 times as many visual readers registered through State Departments of Education as there were braille readers; print/large type readers composed 26.8% of the total population of day school students. Given the selection of possible reading media, braille was utilized only slightly more than auditory materials within this program type; braille readers made up 7.6% and auditory readers 6.7% of the total day school population. As many as 25.0% of day school students were described as prereaders; these were students working on or toward a readiness level. Nonreaders, however, represented the largest portion of those reported by day schools; over one-third (33.9%) of day school students were reported as not reading print, braille, auditory or readiness materials. Their numbers increased since 1990 by 31.0% from 11,601 to 15,196.

Figure 3 juxtaposes the distributions of students registered through State Departments of Education and residential schools. Unlike day school programs, residential schools registered approximately equal proportions of visual readers and braille readers (22.4% and 23.5%, respectively). Auditory readers accounted for only 4.7% of the total residential population. Prereaders proliferated 51.4% over the past 5 years; increasing from 921 in 1990 to 1,394 in 1995, prereaders constituted the largest percentage (31.5%) of those enrolled in residential schools. Unlike in 1990, prereaders composed a greater percentage of the residential population than visual readers or braille readers. The size of the nonreader population within residential schools remained stable from 1990 to 1995; 17.8% of residential students lacked a functional mode of reading.

Facilities for the multihandicapped registered 78.8% of their students as nonreaders and 12.3% as auditory readers. Only a small percentage (8.9%) of registrants in these facilities used braille, print (regular or large type), or readiness materials (prereader) as their primary reading medium. Of all nonreaders reported in 1995, 8.5% were served in facilities for the multihandicapped; the majority (86.7%) were reported through State Departments of Education. The total population of nonreaders in facilities for the multihandicapped increased 63.6% (from 909 to 1,487 students) since 1990.

Prereaders and auditory readers constituted nearly equal percentages of all registrants served in rehabilitation agencies--27.5% and 26.5%, respectively. A slightly smaller percentage (22.1%) were defined as braille readers; 18.5% were visual readers; and a mere 5.4% were classified as nonreaders. In 1990, nonreaders represented as much as 12.2% of the total number of students within this program type; their numbers diminished from 153 to 63--a 58.8% decrease--over the past 5 years.

Table 7

Grade Placement x Reading Medium

Table 7 reveals the distribution of registrants according to grade placement and reading medium. In 1995, "prereader" was the most common classification for students enrolled in infant and preschool programs: 97.2% of infants and 96.8% of preschoolers were described as working on a readiness level. Table 17 indicates that the average ages of these groups were 3 years, 5 months and 5 years, 9 months, respectively. It is likely that the reporting of 288 infants and preschoolers as users of print, braille, and auditory materials or no reading medium at all (i.e., nonreaders) was the result of a misapplication of the reporting codes insofar that all children within these early grade placements should have been categorized as prereaders. Students within these earliest grade placements accounted for 71.5% of all prereaders. Slightly over half (53.6%) of the total number of kindergarteners were also defined as prereaders; 33.9% of these young students were reported as visual, braille, or auditory readers; 12.5% were classified as nonreaders. Table 17 reveals that the average age of these students was 7 years, 4 months.

Concentrating on those in academic grades 1-12, it is apparent that the majority (62.8%) of these students were visual readers; in 1990, the percentage quoted was 69.0%. The current study also reveals that 19.0% of students in these grades were classified as tactual readers--a percentage consistent with that reported 5 years ago. The number of nonreaders within grades 1-12 escalated from 663 in 1990 to 1,199 in 1995--an 80.8% increase. This proliferation of nonreaders within this population of the study is particularly noticeable in grades 1-6. Auditory readers accounted for 4.1% of the total population in primary through secondary grades, and prereaders faded in number from primary to secondary grades. Those working on a readiness level represented 6.9% of pupils in these academic placements.

Academic nongraded students classified as nonreaders increased more than 2.5 times since 1990, from 364 to 927. Consequently, this grade placement no longer comprised mostly visual readers as it had 5 years earlier. Over one-third (39.3%) of the academic nongraded population were nonreaders; 28.9% were visual readers; 12.7% were prereaders; 11.3% were braille readers; and the remaining 7.8% relied on auditory reading materials. Conversely, postgraduate students were mostly visual readers (73.3%), as were those in vocational programs (42.1%).

Other registrants, a population presumably characterized by additional handicaps besides visual impairment, were predominantly nonreaders; fully 71.9% of OR students fit this definition. The number of nonreading OR students grew 24.8% since 1990, from 8,367 to 10,441. Similar percentages of other registrants utilized print, auditory, and readiness materials (8.0%, 8.1%, and 9.1%, respectively). A mere 2.9% depended on braille as their primary reading medium.

With the exception of the nonreader and prereader categories, the percentages of adults classified within each of the other reading medium categories decreased since 1990. Increasing in number by 43.4% since 1990, adult nonreaders composed 59.7% of the total adult student population; in 1990, 47.6% of the adult registrants were described as lacking a functional reading mode. Adult print readers and adult braille readers represented comparable populations within this grade placement (8.8% and 8.6%, respectively). Many adults (21.3%) used auditory materials and only a few (1.7%) were prereaders. The prereader category is appropriate for adventitiously blind adults working on a readiness level.

Table 8

Program Type x Grade Placement x Reading Medium

Table 8 discloses the distribution of students according to program type, grade placement, and primary reading medium. In 1995, 15,002 students in grades 1-12 were registered through State Departments of Education. Of these students within this program type, 64.4% were visual readers (21.5% of the total day school population) and 16.7% were braille readers (5.6% of the total day school population). An even greater disparity between the percentages of academic day school students categorized within these reading medium categories was evident in 1990; at that time, 71.4% were print or large type readers and 16.6% were tactual readers. The current study shows that only 4.4% of day school students in grades 1-12 were auditory readers. Generally, with each successive grade placement a greater number of auditory readers were reported, perhaps indicating that some students in upper grades might begin to rely more and more on auditory materials as greater reading assignments are encountered. Nearly equal percentages of the remaining day school population in primary through secondary grades were either prereaders (7.0%) or nonreaders (7.5%). Noteworthy is the 76.9% increase in the number of day school nonreaders in grades 1-12 (from 636 in 1990 to 1,125 in 1995); the majority (65.9%) of these students were in grades 1-6.

Turning attention to the distribution of residential students within grades 1-12 across the reading medium categories reveals comparable populations of visual readers and braille readers. Specifically, 46.4% of day school students within these academic grade placements (15.4% of the total residential population) utilized print and large type materials and 42.1% (14.0% of the total residential population) were defined primarily as tactual readers. Five years earlier, a similar balance of visual readers and braille readers characterized the population of residential students in primary through secondary grades as reported by Poppe (1991). The current study reveals that a mere 1.2% of residential students in grades 1-12 relied primarily on auditory materials in an educational setting. In addition to day schools, residential schools were also responsible for the reporting of more students in grades 1-12 as nonreaders. Increasing from 27 to 72, the population of residential students in primary through secondary grades in 1995 who lacked a functional reading medium for educational purposes increased over 2.5 times since the beginning of the decade. Prereaders made up 5.4% of the total residential population in grades 1-12, many (44.3%) of which were in grades 1-2.

Both day schools and residential schools reflected similar proportions of adult visual readers and adult braille readers within their program type. Day schools reported 7.3% of their adult population as using print and large type materials and 6.9% as reading braille. Combined, these 714 adults composed only 1.6% of all registrants reported through State Departments of Education. Residential schools, on the other hand, classified 26.6% of their adult students as visual readers and 28.5% as tactual readers. Together, these 87 adults also accounted for a small portion (2.0%) of all students found in residential programs. While residential schools continued to report another 27.8% of their adults as nonreaders--a percentage consistent with those reported in the visual and braille reading medium categories--day schools, in contrast, reported the majority (62.4%) of their adults as nonreaders. Both program types reported an increase in the total number of adult nonreaders registered through their schools. Although representing only 1.0% of the total residential population, the number of adult nonreaders in this program type almost doubled since 1990. Day schools showed a 26.4% increase in the number of nonreading adults over this same time frame. A fair number of adults in day and residential schools were also auditory readers (22.0% and 15.8%, respectively). Only 1.4% of day school students and 1.3% of residential students were described as working on a readiness level.

Academic nongraded populations within the two school types varied in that the largest portion (44.1%) of these students in day schools were nonreaders while most of those in residential schools (39.1%) read tactually. However, the distribution of these academic nongraded students across the other reading medium categories (i.e., visual, auditory, and prereader categories) were quite similar between both school types. Reviewing next the distributions of the small populations of vocational and postgraduate students within each school type reveals large numbers of visual readers. Table 8 indicates that 50.7% of vocational students in day schools and 50.0% of vocational students in residential schools read print or large type. Likewise, 75.0% of day school postgraduates and 71.4% of residential postgraduates were reported as visual readers.

Nonreaders composed the largest portion of other registrants within each school type: 74.6% of OR day school population and 44.0% of the OR residential school population lacked a functional mode of reading. While day schools reported a 30.9% increase in the number of nonreading OR students served in their program, residential schools actually reported a loss in this population by 16.8% since 1990. Of the remaining number of other registrants in day school programs, 7.9% were auditory readers and 8.1% were prereaders; and print readers (1,018) outnumbered braille readers (226): a ratio of 9 to 2. In comparison, 10.1% of other registrants in residential schools were auditory readers; 11.4% were print readers; 15.3% were braille readers; and 19.1% were prereaders.

A brief glance at the numbers of infants, preschoolers, and kindergarteners within each school type reveals a predominance of prereaders. Table 8 reveals that 91.0% of these young students in day school programs and 89.4% of these young students in residential schools were working on a readiness level. Prereaders in the earliest grade placements (i.e., infant through kindergarten) accounted for 19.6% of the total day school population and 23.0% of the total residential school population.

As Table 4 initially indicated and as Table 8 reconfirms, adult students composed the largest portion (72.3%) of all those registered through rehabilitation agencies in 1995. Slightly over one-third (35.0%) of adult students educated in rehabilitation settings used auditory materials, 29.5% were braille users, and 25.5% were print or large type readers. Interestingly, the number of nonreaders within this particular enrollment nearly doubled in 5 years (i.e., from 31 in 1990 to 59 in 1995). The remaining 3.1% were classified as prereaders. A symmetry of opposite age groups served by rehabilitation agencies is evident by their sizable enrollment of infants and preschoolers in addition to the adult population they served; 25.0% of those served in these agencies fell within the earliest grade placements. Of these young students, all but 1 were correctly identified as prereaders. As reported in past in-depth studies by Wright (1988) and Poppe (1991), the majority (66.7%) of the small number of other registrants served in rehabilitation programs were nonreaders.

The distribution of students within the various reading medium categories who were served in facilities for the multihandicapped reveals a predominance of adult students classified as nonreaders. More than doubling in number from 1990 to 1995, nonreading adult students represented 71.8% of all registrants served in facilities for the multihandicapped. Table 8 shows that 80.8% of the total adult population served in these facilities did indeed lack a primary reading medium; 12.9% preferred to use auditory materials; 3.0% read print or large type, 2.0% were prereaders, and 1.2% read braille. Other registrants constituted the second largest group registered through facilities for the multihandicapped; most of these students (75.4%) were nonreaders. The remaining number of OR students within this program type were scattered among other reading medium categories; none, however, were reported as braille readers. A relatively sparse number of infants, preschoolers, students in grades 1-12, and academic nongraded students were served in facilities for the multihandicapped. All of those in the early childhood range were accurately reported as prereaders, three-fourths of those in grades 1-12 were visual readers, and half of those in academic nongraded programs were visual readers as well.

Table 9

Visual Acuity

The nine visual acuity categories used in this study and other earlier in-depth studies of the Federal Quota Registration originated from the visual notations specified on the form, *Eye Report for Children with Visual Problems* published by the National Society for Prevention of Blindness (Nolan, 1967). The exact range of each category is as follows:

Category	Visual Acuity
I	20/200 - 18/200
II	17/200 - 13/200
III	12/200 - 8/200
IV	7/200 - 3/200
V	2.5/200-.4/200
VI	counts fingers
VII	hand movements, form and object perception
VIII	light projection and light perception
IX	total blindness (nil)

In general, categories I-III infer a moderately severe visual loss; students assigned to one of these categories might depend on regular print or large type, perhaps with the assistance of optical aids or special lighting, as their primary reading medium (Scholl, 1986). The severely visually handicapped, with acuities from 7/200 to "counts fingers" are represented in categories IV-VI; frequently these students will either utilize high-powered optical devices or CCTV (closed-circuit television) for visual reading purposes, or instead opt for a nonvisual reading medium. The last three categories (VII-IX) indicate a profound visual loss; due to having minimal residual vision, most of these students are unable to use a visual reading medium of any sort. Assignment to these categories was based upon the corrected vision in the better eye. As mentioned in the introduction of this report, 903 students with visual field loss (category X) were omitted from the original 1995 Registration population.

The classification of the 1995 quota registrants according to these visual acuity categories is presented in Table 9. The majority (32.2%) of the students were reported within category I (i.e., the best possible vision within the legal definition of blindness). At the opposite extreme, 19.5% of all registrants had no residual vision (category IX). Both of these visual acuity categories (I and IX) experienced minor, but continual losses in the total percentage of students they comprised over recent years. Students with only "light projection and perception" (category VIII) made up 17.6% of the total population. Each of the categories from II to VII represented between 11.5% and .7% of the total population.

Almost half (48.6%) of all registrants during 1995 reported a profound visual loss (categories VII-IX); however, another sizable percentage (42.8%) of the total population claimed vision of 8/200 or better (categories I-III). Consequently, a vast percentage (91.4%) of all students appeared to fall into the two levels at the polar ends of the distribution, resulting in relatively few students (8.6%) within borderline classifications (categories IV-VI). As Figure 4 illustrates, a similar pattern of distribution across the varying degrees of vision was evident in 1987 and 1990 as well.

Modest, yet discernible gains in the percentage of students reported within the intervening visual acuity categories (IV-VI) are recognized when comparing the 1995 Registration sample with figures presented in the two most recent studies by Wright (1988) and Poppe (1991). In 1987, 6.9% of the total number of registrants were reported with severe visual losses; in 1990, 7.7%; and as mentioned earlier, 8.6% in 1995. Over the same duration of time, a steady increase in the percentage of students composing visual acuity categories VII-IX was matched with a steady decrease in the percentage of students classified within categories I-III.

Table 10

Program Type x Visual Acuity

Table 10 presents the distributions of quota registrants according to their degree of vision within the four program types. Clearly, the most severely visually impaired population in 1995 was reported by facilities for the multihandicapped where 72.8% of the students fell within the lowest visual acuity categories (VII-IX). Fully 40.6% of all students registered through this program type had no remaining vision (category IX); in contrast, only 18.0% were reported within category I--the best possible vision within the legal definition of blindness. Focusing on all those receiving guidance in rehabilitation agencies, note that more than half (53.5%) of these registrants had vision levels of "hand movements" or less (categories VII-IX); 34.8% had reported acuities in categories I-III; and 11.7% fell within the intermediate range (IV-VI). The general distributions of both groups (i.e., multihandicapped students and rehabilitation students) across the visual acuity categories mirrored those exhibited in 1987 and 1990.

The distribution of students in residential schools according to visual acuity level closely resembled that reported for students in rehabilitation agencies; 34.2% of residential pupils were reported in the upper visual acuity levels (categories I-III), with the majority (55.4%) falling at the opposite end of the spectrum (categories VII-IX). Although day schools also reported the largest percentage (46.8%) of their students as having profound visual losses, they nonetheless provided services to more students with greater visual ability than did any of the other program types as shown in Figure 5. More than half (53.2%) of those registered through State Departments of Education had visual acuities in excess of "hand movements" (categories I-VI), compared to 44.6% of residential students, 46.5% of those in rehabilitation agencies, and 27.2% of those served in facilities for the multihandicapped.

The percentage of day school students classified within the three least restrictive visual acuity categories (I-III) has steadily dropped from 48.5% in 1987 to 45.8% in 1990 to 44.7% in 1995. Residential schools have displayed the same continual decline in their students' visual ability over recent years: 38.4% in 1987, 34.3% in 1990, and 34.2% in 1995.

Table 11

Grade Placement by Visual Acuity

Table 11 depicts the distribution of registrants according to grade placement and visual acuity level. Combining all students in grades 1-12 reveals that at least half

(50.3%) were classified within the least restrictive visual acuity category (i.e., category I). Conversely, a total absence of vision characterized only 10.1% of this population. Sizes of all intervening categories (II-VIII) ranged from .8% to 13.5% of the total number of these academic students. Thus, a significant majority of all students in grades 1-12 had some degree of residual vision. Only 1,661 of the 16,489 students reported within these grade placements were totally blind.

By examining the distribution of students within grades 1-12 according to the three descriptive levels of vision (i.e., moderately severe, severe, and profound), it becomes apparent that the majority (68.7%) of those in primary through secondary grades were reported with moderately severe visual impairments (categories I-III); 22.8% fell within the lower visual acuity levels which indicate profound visual losses; and the remaining 8.5% fell within the borderline range (categories IV-VI). The distribution of these academic students across the three visual acuity groupings is not congruent with the distributions of day and residential students, shown in Table 10, according to these same visual acuity delineations where 44.7% and 34.2%, respectively, fell within categories I-III and where 46.8% and 55.4%, respectively, fell within categories VII-IX. Apparently, students in grades 1-12 were more apt to be reported with better vision than those in other grade placements during 1995. However, their vision as a group had deteriorated slightly since 1990. While the percentage of these students classified within categories IV-VI has remained constant over a 5-year interval, a percentage loss in categories I-III (down from 72.0% in 1990) was matched with a percentage gain in categories VII-IX (up from 19.7% in 1990).

Table 11 further reveals that the pattern of distribution of kindergarten students across all visual acuity categories somewhat resembled that reported for students in grades 1-12. Over half (54.0%) of these students fell within categories I-III; 36.1% were reported at the end of the scale (categories VII-IX); and the remaining 9.9% were reported within categories VI-IV. Infants and preschoolers, in contrast, were classified primarily within the *most* restrictive visual acuity categories (VII-IX)--57.8% had vision of "hand movements" or less; 32.5% fell within categories I-III; and the smaller percentage (9.7%) were reported in categories IV-VI. Wright (1988) offered the following plausible reasons for the lower numbers of infants and preschoolers with acuities in the upper ranges as compared to those in grades K-12:

◆ Young children's degree of vision may be underestimated due to the difficulty of obtaining accurate vision assessments at this early age.

◆ Young children with moderately severe visual loss are not often diagnosed and/or not registered in vision programs, consequently lowering the relative number of infant/preschool registrants with acuities in the least restrictive visual acuity categories.

◆ This population is more likely to include students with multihandicaps than is the school age population. (Older multihandicapped students are often separated from their classmates and placed in special programs which classify their students as other registrants.)

The proportions of academic nongraded students reported at both ends of the continuum counterbalanced each other: 40.3% of these students were reported in categories I-III and 43.4% were reported in categories VII-IX; 16.3% fell within the intermediate range (categories IV-VI). As compared to other grade placement populations, the small group of postgraduates comprised students with the best vision; fully 80.0% were reported with vision within the least restrictive categories (I-III). Vocational students, another small portion of the 1995 Registration, were distributed across the various visual acuity categories in the following manner: 54.0% reported moderately severe visual losses, 15.9% had severe visual impairments, and 30.1% were profoundly impaired.

An analysis of acuities within the other registrant population reveals that somewhat similar proportions of these students were reported at opposite extremes of the visual acuity scale: 23.9% were placed in category I and 22.4% were reported as totally blind (category IX). However, the majority (61.6%) of OR students were reported within the most restrictive visual acuity designations (categories VII-IX); 30.6% were reported at the other end of the spectrum (categories I-III); and 7.8% had vision within the intermediate range (categories IV-VI). Wright (1988) offered the following twofold explanation for the greater number of other registrants classified within the three lowest visual acuity categories. First, additional handicaps may be more prevalent among this OR population, thus hindering accurate visual assessments of many of these students. Secondly, the lack of response to visual stimuli demonstrated by low functioning multihandicapped students with cortical blindness might be misinterpreted as total blindness, consequently placing many of these students in category IX.

Of all grade placements, the "adult student" category comprised the largest percentage of totally blind registrants; 42.4% of this population fell within category IX. Fully 72.6% of all visually impaired adults in 1995 had reported visual acuities of less than "counts fingers" (categories VII-IX); 21.5% were in categories I-III, with 15.5% reporting the best possible vision within the legal definition of blindness (category I); and only 5.9% fell within the intervening visual acuity categories (IV-VI). The general distribution of the adult registrants across the nine visual acuity categories is consistent with that reported for the 1990 Registration.

Table 12

Program Type x Grade Placement x Visual Acuity

Table 12 displays the distribution of registrants according to program type, grade placement, and visual acuity. As well as highlighting a heavier distribution of infants and preschoolers within the three most restrictive visual acuity categories (VII-IX), this analysis confirms a predominance of profoundly impaired young children within each of the four program types. Residential schools reported 65.2% of their infant/preschool population as having vision less than "counts fingers;" 12.4% were totally blind. Day schools also classified the majority (56.1%) of their infant/preschool registrants in the lowest range of visual acuity; 15.0% lacked any residual vision. Rehabilitation agencies and facilities for the multihandicapped alike defined an overwhelming percentage of their infant and preschool students as having visual acuities within categories VII-IX (75.7% and 81.0%, respectively). The distribution of the infant/preschool population across the continuum of visual acuity levels mimics that detailed in 1990. Possible explanations for this large concentration of young students within the lowest acuity levels are discussed in the summary of Table 11.

Kindergarten students in day school programs contradicted the general pattern of distribution reported for other early childhood students in terms of their visual acuity level. Most (55.6%) of these students fell within the least restrictive categories (I-III); 35.0% were classified within categories VII-IX. Yet those in residential kindergarten programs continued to display similar visual acuities to those in infant and preschool placements insofar that most (53.1%) of these students had vision of "hand movements" or less; 30.2% were in categories I-III. Consequently, it follows that kindergarten students in day schools had better vision than kindergarten students in residential schools.

In examining the differences in the visual acuities of students in grades 1-12 in day and residential schools, it is clear that day schools reported a much greater percentage of students with acuities in the three highest categories (I-III). This trend was also cited in recent in-depth studies by Wright (1988) and Poppe (1991). Fully 70.6% of all day school students in these academic grades fell within the boundaries of moderately severe visual impairments in 1995; over half (52.4%) of this population was described as having the best possible vision within the legal definition of blindness (category I). In contrast, only 29.5% of residential students in grades 1-12 were in category I and less than half (48.9%) fell within the uppermost categories (I-III) of the visual acuity scale. Residential schools reported 37.7% of their students in grades 1-12 as having vision of "hand movements" or less; exactly 17.0% were totally blind. In comparison, 21.3% of all day school students in primary through secondary grades had profound visual impairments; only 9.4% reported no residual sight. Perhaps the relatively greater percentage of residential students in grades 1-12 with acuities in the lowest categories (VII-IX) acts as an explanation for the greater percentage of braille readers in grades 1-12 in this program type; Table 8 indicated that 42.1% of residential students in grades 1-12 were braille readers compared to only 16.7% of day school students in equivalent grades. The difference in the percentages of visual readers reported by each school type also seems the result of acuity variance among these populations. Table 8 indicated that 64.4% of day school students in grades 1-12 were print readers compared to 46.4% of residential students in these same academic placements. Logically, those with better vision are more apt to depend on print and large type materials for reading purposes.

The dispersion of academic nongraded students in day school programs across the visual acuity categories created a near balance; 42.0% fell within categories I-III and 41.6% fell within categories VII-IX. Reminiscent of the distribution of residential students in grades 1-12 by visual acuity, the majority of academic nongraded students in residential schools were profoundly impaired; 54.4% were classified in categories VII-IX. In both school types, the small populations of postgraduate students and vocational students were mostly concentrated in the uppermost visual acuity range (categories I-III).

As Table 4 initially disclosed, adult students were represented to some degree in all program types reviewed in this study. Table 12 further reveals that day schools, which served the greatest number of adult students (5,037), also served the greatest number (3,871) of adults with profound visual impairments. Of adults registered through State Departments of Education, 76.9% fell within categories VII-IX; 45.5% reported no remaining sight. The vast percentage of adult students served in facilities for the multihandicapped were also profoundly impaired. Fully 73.9% of adults in these facilities had vision of "hand movements" or less; 42.2% were totally blind. To a lesser extent, the majority (58.9%) of adults instructed in residential settings fell within the most restrictive range (categories VII-IX); 29.7% were found at the opposite end of the spectrum. Less disparity was evident in the percentages of adults in rehabilitation programs classified within the three highest and three lowest visual acuity categories (40.0% and 46.8%, respectively).

Finally, in analyzing the distribution of students reported as other registrants, the high percentage of students in categories VII-IX is evident once again. Day schools reported 60.8% of their 13,065 OR students within the most restrictive visual acuity categories; 21.1% were totally blind. Residential schools served an OR population with somewhat less visual ability than OR students in day school programs; fully 68.6% had profound visual impairments and 34.5% had no residual vision whatsoever. Ironically, Table 8 revealed a higher percentage of visual readers among the OR students in residential schools than in day schools despite their greater visual acuity loss; 11.4% of OR pupils in residential schools and 7.8% of OR pupils in day schools were visual readers. Residential schools also reported a smaller percentage of their OR population as nonreaders than did day schools (44.0% and 74.6%, respectively). Conceivably, variables other than visual acuity contributed to the differences in the reading media reported by the two school types for their OR students. Of the small population of other registrants served in facilities for the multihandicapped, 67.3% had visual acuities of "hand movements" or less (categories VII-IX); 25.1% fell at the opposite end of the scale (categories I-III).

Table 13

Visual Acuity x Reading Medium

Table 13 illustrates the relationship between visual acuity and reading medium. In examining the reported figures, one wonders if possibly a noticeable shift, or "breaking point" as Wright (1988) proposed, occurred at which more students, because of a certain visual acuity, began to rely primarily upon nonvisual reading materials rather than upon print or large type. In order to discern more easily if such a transition occurred, prereaders and nonreaders were temporarily removed from the total study population. Therefore, the figures reported in the following discussion are calculated upon the total number of visual, braille, and auditory readers exclusively.

In the least restrictive visual acuity categories (I-III), between 80.1% and 90.7% of the registrants were visual readers; between 2.5% and 10.2% read braille; and between 6.4% and 9.7% relied primarily upon auditory reading media. Categories IV and VI continued to report larger proportions of visual readers: 59.9% and 52.4%, respectively. Category V, however, showed the first indication of fewer visual versus braille readers: 37.2% read print and 43.0% read braille. Combined, braille readers and auditory readers composed 62.8% of the population within category V. Despite this unanticipated shift in reading mode for this single classification, the intermediate categories (IV-VI) comprised nearly twice as many visual readers than tactual readers. Category VII reveals a more pronounced reversal in the preference of reading medium--a trend that continues through category IX. Only 24.0% of those who had form and object perception read print or large type; fully 76.0% were either braille or auditory readers. Category VII also marked one of the few times that auditory readers outnumbered braille readers (403 versus 340). In preparing the Registration data for the present study, all students reported with a visual reading medium and an acuity in category VIII or IX were omitted from the analysis. Following the deletion of 170 registrants based upon this provision, category VIII reported 58.4% as braille readers and 41.6% as auditory readers. Of those who were totally blind (category IX), 63.2% were tactual readers and 36.8% were auditory readers.

In summary, a shift to nonvisual means of reading was first witnessed in category V. However, due to a reversal to primarily visual media in category VI, a "breaking point" could not be determined. Generally, categories I-III represented visual readers, as did categories IV-VI but to a lesser extent, and categories VII-IX represented mostly braille readers (57.2%) and auditory readers (39.1%).

Restoring prereaders and nonreaders to the analysis of Table 13 reveals that 36.5% of prereaders fell within categories I-III. Most of the prereaders within this higher acuity range (3,740 out of 4,750) had the best possible vision within the legal definition of blindness. Only 10.3% were reported with acuities within the intermediate categories (IV-VI). Unmistakably, over half (53.2%) of all prereaders were profoundly impaired; 14.4% reported no remaining vision.

Nonreaders pervasively had visual acuities within the most restrictive range; fully 69.8% fell within categories VII-IV and 29.4% were totally blind. Exactly 23.0% of these students with an undetermined reading mode were defined as having only moderately severe visual impairments (categories I-III). Jointly, Table 7 and Table 11 clarify that 59.5% of these nonreaders were OR students and that 61.6% of these other registrants had profound visual losses.

Table 14

Grade Placement x Reading Medium x Visual Acuity

Table 14 shows the interaction of three variables: grade placement, reading medium, and visual acuity. Given that all infants and preschoolers should be registered as prereaders according to the 1995 Student Registration System instructions, it follows that the majority of all infants (97.2%) and the majority of all preschoolers (96.8%) regardless of visual acuity level were classified as working on a readiness level. Obviously, 114 infants and 174 preschoolers averaging an age of 3 years, 5 months and 5 years, 9 months, respectively, were misclassified. It is likely that those misreported were classified within the reading medium category for which they were most likely destined based on the reporter's judgement. Kindergarten students within the upper and lower extremes of the visual acuity scale were primarily prereaders--54.2% of those in categories I-III and 51.7% of those in categories VII-IX. Of the remaining population of kindergarten students with moderately severe visual impairments, 34.3% read print or large type, 7.3% were nonreaders, 3.7% read braille, and only .5% used auditory materials. In contrast, equal proportions of profoundly impaired kindergarten students were braille readers and nonreaders, 3.8% were visual readers, and only 1.5% were auditory readers.

According to Table 14, students in primary through secondary grades with moderately severe visual impairments (categories I-III) were primarily print or large type readers. Generally increasing in number with each consecutive grade, the percentages of students in grades 1-12 with acuities in the three uppermost categories and classified as visual readers ranged from 62.1% to 89.8%. In contrast, greater numbers of braille readers in grades 1-12 were located at the opposite end of the visual acuity scale; the percentages of students in grades 1-12 with acuities within the boundaries of categories VII-IX and reported as braille readers ranged from 42.6% to 78.0%. The appearance of auditory readers became more prevalent with each passing grade; beginning at 2.2% and rising to 10.6%, students in grades 1-12 with visual acuities of "hand movements" or less were reported as auditory readers. This gradual growth of auditory readers, which was alluded to in the analysis of Table 8, could be the effect of older students depending more and more on auditory materials as greater reading assignments are encountered. Although sizable percentages of prereaders continued to be reported in categories VII-IX for first and second grades (32.3% and 23.2%, respectively), their percentages declined from 9.7% in grade 3 to .4% in grade 12. The presence of nonreaders in the most restrictive visual acuity categories fluctuated between 10.2% and 25.6% (VII-IX) in grades 1-12.

Academic nongraded students with vision of 20/200-8/200 were primarily visual readers--59.5% read print or large type. Over half (54.4%) of academic nongraded students with a visual acuity falling below category VI were nonreaders; 21.0% read braille; 12.8% were prereaders; 10.0% were auditory readers; and the remaining percentage were visual readers.

Looking briefly at the small postgraduate population (i.e., a total of 15 students), it is evident that 80.0% of these registrants had acuities within categories I-III; the vast percentage (91.7%) of these 12 postgraduates with the least limited vision were visual readers. The majority (54.0%) of vocational students also had visual acuities within the uppermost categories (I-III) with 66.2% of these students classified as visual readers. Equal proportions of vocational students with acuities within the boundaries of categories VII-IX were braille and auditory readers; each group made up 39.5% of this population of 38 students.

The distribution of adult students shown in Table 14 reveals that of those with extremely low visual acuities (categories VII-IX), 67.8% were described as nonreaders; 21.0% were auditory readers; 9.5% were braille readers; and the remaining percentage was either visual readers or prereaders. This heavier distribution of profoundly impaired adults within the nonreader category echoes the pattern of distribution cited 5 years ago; however, in 1990 a smaller percentage (55.4%) of profoundly impaired adults were described as lacking a functional reading medium. Wright (1988) proposed a twofold explanation for the predominance of nonreaders in this grade placement that is still applicable today. First, since adult students is the only grade placement intended for students beyond typical school age, it is reasonable to assume that some of these students are multihandicapped. Indeed, 21.7% of the adult population were served in facilities for the multihandicapped (see Table 4). In 1990, only 13.5% of the adult population was reported through this program type. Consequently, with the increase of multihandicapped adults comes the proliferation of adult nonreaders. Secondly, it is plausible that adventitiously blind adults beginning braille instruction were perceived and misreported as nonreaders rather than as prereaders. Table 14 confirms that only 1.3% all adults in the lower visual acuity range were reported as prereaders. Of all adult students found at the other end of the visual acuity spectrum (categories I-III), 34.0% were visual readers, 21.4% were auditory readers, 4.4% read braille, and only 3.0% were prereaders; the largest percentage (37.1%), however, were nonreaders even within these least restrictive visual acuity categories.

The last page of Table 14 also shows the distribution of other registrants among the reading media and visual acuity categories. As Table 7 first indicated and as Table 14 reconfirms, fully 71.9% of all OR students were classified as nonreaders.

Of those OR students with profound visual losses (categories VII-IX), a substantial percentage (77.8%) lacked a functional mode of reading; this compares to 68.1% classified as such in 1990. Describing further other registrants in the lowest visual acuity categories, 9.5% used auditory materials, 8.0% used readiness formats, and 4.1% read braille. Viewing next the population of OR students within the least restrictive visual acuity categories discloses the majority (61.2%) as nonreaders; 22.1% were print readers; 10.0% were prereaders; 5.8% were auditory readers; and less than 1.0% were braille readers. Perhaps the greater number of auditory readers than braille readers (i.e., 260 versus 37) in this case can be attributed to the difficulty, whether perceived or actual, of the braille code. As Wright (1988) submits, ". . .the braille code has been considered more difficult to learn than print" (p. 23).

Table 15

Program Type x Reading Medium x Visual Acuity

Table 15 depicts the relationship between three variables: program type, reading medium, and visual acuity. The distribution of students with moderately severe visual impairments among the various reading media was somewhat similar for both day and residential schools. The percentages for day and residential students in categories I-III were, respectively: 54.6% and 55.4% visual readers; 2.2% and 6.9% braille readers; 3.8% and 2.6% auditory readers; 21.2% and 26.6% prereaders; and 18.2% and 8.4% nonreaders. Since 1990, declines in the percentages of moderately impaired students classified within the visual, braille, and auditory categories were witnessed in both day and residential schools. This decline was countered by gains in the percentages of moderately impaired day and residential students classified in the prereader and nonreader categories.

Corresponding figures for students with profound visual losses reveal more variation between the two school types. The percentages for day and residential students in categories VII-IX were, respectively: 1.0% and .6% visual readers; 12.3% and 32.4% braille readers; 9.7% and 6.1% auditory readers; 27.4% and 36.3% prereaders; and 49.6% and 24.6% nonreaders. Steady losses in the percentages of profoundly impaired registrants defined as visual, braille, and auditory readers were experienced since 1990 in both day and residential schools; the percentage of profoundly impaired residential students reported as nonreaders also dropped from 27.9% in 1990 to 24.6% in 1995. Increases were detected in the percentages of day school students in categories VII-IX reported as prereaders and nonreaders over the same 5-year duration, as well as in the percentage of profoundly impaired residential students classified as prereaders.

Table 15 indicates that the largest group served by rehabilitation agencies were prereaders with visual acuities within the most restrictive range (categories VII-IX). These students composed 19.9% of the total rehabilitation population and were primarily infants as confirmed in Table 8; fully 72.6% of prereaders in this program type were in the earliest grade placement. The majority (78.3%) of braille readers served in rehabilitation agencies also reported profound visual impairments; they represented the second largest group within this program type (i.e., 17.3% of the total population reported through rehabilitation agencies). The third most predominant group in rehabilitation programs were visual readers with acuities between 20/200 and 8/200 (categories I-III); they made up 15.9% of all registrants served by rehabilitation agencies. The largest percentage (45.3%) of auditory readers served by rehabilitation agencies had visual acuities of "hand movements" or less; 34.3% were classified within categories I-III; and the remaining 20.4% were reported within the intervening categories. Fully 68.3% of nonreaders reported through this program type were profoundly impaired.

Analyzing the distribution of registrants in facilities for the multihandicapped discloses a preponderance of nonreaders within the most restrictive visual acuity range (categories VII-IX); 62.9% of the total population reported through this program type were nonreaders with profound visual impairments. This group of nonreaders with acuities less than "counts fingers" (i.e., 79.9% of all nonreaders in multihandicapped programs) were likely adult students; Table 8 demonstrates that a vast percentage (91.1%) of the 1,487 nonreaders served in facilities for the multihandicapped were classified as such.

Table 16

Program Type x Average Age

Table 16 reveals the average age, in months, of students registered through each of the four program types. Continuing the trend cited in both 1987 and 1990, day schools and residential schools provided education to students of similar average age: 14 years, 7 months and 13 years, 2 months, respectively. These average ages are consistent with the data presented in Table 4 showing that the largest percentage of students in both program types--33.4% of those enrolled in state department programs and 33.2% of those in residential programs--were in grades 1-12. Other registrants also composed a large number of students registered through each of these school types; with an average age of 13 years, 9 months, as indicated by Table 17, these students obviously contributed to the resulting average age of day and residential populations.

The average age of pupils in facilities for the multihandicapped reflected a greater preponderance of adults served. Table 4 showed that 88.8% of those served through these agencies were indeed adult students. Over recent years the average age of these multihandicapped students has noticeably increased; the mean age of these students climbed from 26 years, 7 months in 1987 to 31 years, 1 month in 1990, to 38 years, 11 months in 1995. Likewise, the average age of those served in rehabilitation programs has also risen. This predominantly adult population reported an average age of 32 years, 5 months in 1995--8 years, 5 months older than in 1987. Yet, as Table 4 illustrates, one-fourth of all students enrolled through these agencies were infants and preschoolers. The inclusion of these younger students no doubt reduces the mean age reported for registrants served by rehabilitation programs.

Table 17

Grade Placement x Average Age

Table 17 discloses the average age of students within each grade placement category. Looking first at the youngest students, it is apparent that the ages of registrants in infant, preschool, and kindergarten programs were somewhat greater than might be expected for these grade placements. Infants averaged 3 years, 5 months; preschoolers averaged 5 years, 9 months; and kindergarteners averaged 7 years, 4 months. The reported average ages for these particular groups have remained stable since 1990; it is only when comparing these ages to those reported in 1987 that one notices an increase of at least 11 months in the average ages of legally blind students at these early childhood levels.

The reported average age of registrants in primary through secondary grades ranged from 8 years, 6 months in Grade 1 to 19 years, 7 months in Grade 12. With each successive grade placement, the average age increased by 11 to 13 months. Clearly, the average age of visually impaired students within each of these grade placements tended to exceed the expected average age of sighted students by approximately 2 years.

The average age of pupils in the other registrant category was 13 years, 9 months--an age similar to that reported in 1995 for visually impaired students in sixth grade. (Table 18 displays in greater detail these OR students by average age and program type.) The academic nongraded category also comprised students just embarking on their teenage years; these students' ages averaged 13 years, 2 months.

Postgraduate and vocational students were similar in age (20 years, 9 months and 22 years, 8 months, respectively). Whereas the average age of vocational students increased since 1990 by 5 years, 1 month, the average age of postgraduates decreased minimally over the same duration of time.

Not surprisingly, the oldest group of students were those forming the adult student population. Registered within a grade placement reserved for all those beyond *typical* school age, these adult students averaged 40 years of age.

Table 18

OR Students x Age x Program Type

Table 18 displays the distribution of other registrants according to age (in months) and program type. By definition, "other registrants" are students of school age, as determined by state law, who do not fall into any of the other grade placement categories (e.g., students in prevocational and other classes for *nonacademic* students). Subsequently, the majority (95.7%) of OR students were between 6 years, 1 month and 22 years of age. Of these 13,906 OR students, 89.8% were reported through State Departments of Education, 9.0% were in residential schools, and 1.2% were in facilities for the multihandicapped. They composed 26.6% of the total population in 1995.

Only 2.8% of the other registrant population were either infants, preschoolers, or kindergarteners, nearly all of whom (96.3%) were served by day schools. A slightly higher percentage (4.3%) of the OR population in 1990 fell within this early childhood range.

The remaining 1.5% of other registrants were beyond *typical* school age; 98.2% of these students were between 22 years, 1 month and 32 years old and were served almost exclusively in day school programs. In 1987, Wright (1988) reported that as much as 13.8% of the OR population were older than normal school age; the decrease in this percentage over recent years could be attributed to improved classification of these students as adults rather than as other registrants.

Table 19

Reading Medium x Average Age

Table 19 displays the average age (in months) of students reported in each of the five reading medium categories. Noticeably, auditory readers represented the oldest group of students in 1995; at an average age of 27 years old they were 3 years, 8 months older than auditory readers reported in 1990. As confirmed in Table 7, the greater mean age of students using primarily auditory reading materials can be attributed to the sizable percentage (43.7%) of auditory readers reported as adult students. The reporting of 31.2% of auditory readers as other registrants further explains the elevated mean age; Table 18 indicated that a number of these OR students were between 22 years, 1 month and 62 years of age.

Nonreaders, as reported in both 1987 and 1990, claimed the next highest average age. Table 7 shows that over half (59.5%) of these nonreaders were other registrants; 26.3% were reported as adult students. Although other registrants had an average age of only 13 years, 9 months, the inclusion of adult students, who averaged 40 years of age (see Table 17), still resulted in a relatively high mean age of 20 years, 5 months for nonreaders as a whole.

Table 19 also reveals that braille readers were slightly older on average than visual readers (17 years compared to 15 years, 1 month). The disparity in the average ages of these two groups is explained by the greater percentage of braille readers classified as adults; as Table 7 indicates, while only 5.1% of the total population of visual readers were classified as adult students, a much larger percentage of braille readers (13.9%) were reported as such. Wright (1988) also suggests that students might learn to read braille at a slightly later age than print, in turn increasing the average age of braille readers.

The remaining category, prereaders, demonstrated the lowest average age (6 years, 6 months). Referring back to Table 7, it is clear that infants and preschoolers constituted the largest percentage (71.5%) of those working on or toward a readiness level.

Table 20

Visual Acuity x Average Age

Table 20 reports the average age (in months) of students in each visual acuity category. As shown, the average ages of students with visual acuity levels I-VIII were quite similar; they ranged from 13 years, 9 months to 15 years, 3 months. This reported age span is likely the result of a larger concentration of students of school age or younger with visual acuities of light perception or better (see Table 11).

The average age of totally blind students increased from 19 years, 8 months in 1990 to 21 years, 3 months in 1995. As Table 11 indicated, over half (63.9%) of those lacking any residual vision were either adults (3,268) or other registrants (3,252). Consequently, the presence of these two groups accounted for the higher mean age reported in the lowest visual acuity level (category IX).

Summary

Each year information concerning legally blind students in the nation is reported to the American Printing House for the Blind in order to register eligible students for federal quota funds. Periodically, these data are examined to discern trends within the population and general characteristics of the pupils requiring material and services designed for the visually impaired. This study detailed the data compiled from the 1995 Federal Quota Registration. Additional attention was given to comparing the information examined to the two most recent in-depth studies by Wright (1988) and Poppe (1991).

As of January 3, 1995, a total of 54,763 legally blind students were registered with the American Printing House for the Blind. In preparation of the analysis of the 1995 Registration data, several deletions and alterations were necessary to eliminate ambiguous data in an effort to make the study more experimentally sound and to make it consistent with recent in-depth studies of the 1987 and 1990 Registrations. A total of 2,416 students were omitted from the final 1995 Registration figures. Consequently, the current study was based on the data of the remaining 52,347 students, 95.6% of the total number registered in 1995.

During the examination of the 1995 Registration, several subpopulations emerged, most notably 1) early childhood students; 2) students in academic grades 1-12; 3) other registrants; and 4) adult students. The general characteristics of these four selected groups of students according to average age, visual acuity level, enrolling program type, and primary reading medium as gleaned from the current study follow.

Students enrolled in infant, preschool, and kindergarten programs accounted, respectively, for 7.9%, 10.5%, and 2.9% of the total number of registrants in this study. Combining the numbers of these young students reveals that 21.2% of all registrants in 1995 fell within this early childhood range. The vast majority (86.9%) of these students were reported through State Departments of Education. [For this age group, this may include public school kindergartens, private/nonprofit agencies which provide homebound services to infants and preschoolers, private/nonprofit centerbased preschools (i.e., some mainstreamed and some serving only handicapped children), programs operating through hospitals, and others.] Stated more precisely, 78.9% of all infants, 91.2% of all preschoolers, and 93.6% of all kindergarten students were served through this program type. Of the remaining population of early childhood registrants, 10.2% were reported through residential schools for the blind, 2.6% were served by rehabilitation agencies, and less than 1.0% were enrolled in facilities for the multihandicapped. Together, infants, preschoolers, and kindergarten students composed similar percentages of all students registered through day schools, residential schools, and rehabilitation agencies--21.5%, 25.7%, and 25.1%, respectively. The visual acuities of these early childhood registrants varied. Infants and preschoolers were classified primarily within the *most* restrictive visual acuity range (categories VII-IX)--57.8% had visual acuities of "hand movements" or less; 32.5% fell within categories I-III; and 9.7% were reported within categories IV-VI. In contrast, over half (54.0%) of all kindergarten students' acuities fell within the *least* restrictive range (categories I-III); 36.1% were reported at the other end of the scale (categories VII-IX); and the remaining 9.9% fell within the intermediate range (categories IV-VI). A larger percentage of the infant/preschool population registered through facilities for the multihandicapped had visual acuities within categories VII-IX compared to those enrolled in other program types--81.0% versus 75.7% of infants/preschoolers in rehabilitation agencies, 65.2% of those in residential schools, and 56.1% of those in day schools. In regard to their visual acuity level, kindergarten students in day school programs contradicted the general pattern of distribution reported for other early childhood students; most (55.6%) of these students fell within the least restrictive categories (I-III). However, kindergarten students in residential programs continued to display similar visual acuities to those in infant and preschool placements insofar that most (53.1%) had acuities ranging from "hand movements" to total blindness (categories VII-IX). Given that all infants and preschoolers should be registered as "prereaders" according to the 1995 Student Registration System instructions, the majority of infants (97.2%) and the majority of preschoolers (96.8%), regardless of visual acuity level, were identified as using readiness materials. Apparently, 288 infants and preschoolers were misclassified within the other reading medium categories--perhaps classified within the category for which they were most likely destined based on the reporter's judgement. Slightly over half (53.6%) of all kindergarten students were also defined as prereaders; 33.9% were described as visual, braille, or auditory readers; and 12.5% were classified as nonreaders. The average age of pupils in infant programs was 3 years, 5 months. Preschoolers averaged 5 years, 9 months of age and kindergarten students averaged 7 years, 4 months of age. The reported average ages for these groups have remained relatively stable since 1990; it is only when comparing the averages ages of each of these early childhood placements to those reported in 1987 that an increase of at least 11 months is noticed.

School-age academic students in grades 1-12 constitute another subgroup found within the population of registrants. In 1995, they formed 31.5% of the total number of registrants in this study and were almost exclusively served in programs reporting through State Departments of Education and residential schools (91.0% and 8.9%, respectively); 33.4% of day school students and 33.2% of residential students were in primary through secondary grades. Day students outnumbered residential students approximately 15 to 1 in grades 1-6 and approximately 7 to 1 in grades 7-12. Combining all students in grades 1-12 reveals that at least half (50.3%) were classified within the least restrictive visual acuity category (i.e., category I) denoting an acuity between 20/200 and 18/200. Conversely, only 10.1% were totally blind (category IX). Day school students in grades 1-12 tended to have higher visual acuities than their peers in residential schools. Fully 70.6% of all day school students in academic grades 1-12 fell within the boundaries of moderately severe visual impairments (categories I-III); over half (52.4%) were described as having the best possible vision within the legal definition of blindness (category I). In contrast, less than half (48.9%) of residential students in grades 1-12 fell within the three uppermost categories of the visual acuity scale and only 29.5% had visual acuities within the 20/200-18/200 range. Furthermore, residential schools reported 37.7% of their students in grades 1-12 as having visual acuities of "hand movements" or less; exactly 17.0% were totally blind. In comparison, 21.3% of all day school students in primary through secondary grades had profound visual impairments; only 9.4% reported no residual vision. Seemingly, the relatively greater percentage of residential students in grades 1-12 with acuities falling between categories VII and IX acts as an explanation for the greater percentage of braille readers in grades 1-12 in this program type; 42.1% of residential students in these academic grades were braille readers compared to only 16.7% of day school students in equivalent grades. The difference in the percentages of visual readers reported by each school type also appears to be the result of acuity variance among these populations; 64.4% of day school students in grades 1-12 and 46.4% of residential in grades 1-12 were print readers. Day school students were also more apt to read primarily auditory media than residential students (4.4% versus 1.2%, respectively), and the number of auditory readers in day school programs generally increased with each consecutive grade. Similar percentages of the day school students were classified as prereaders (7.0%) and nonreaders (7.5%). Residential students were less inclined to be registered as such; 5.4% were prereaders and 4.9% were nonreaders. The average age of first graders was 8 years, 6 months. The average age of each grade placement increased by about 11 to 13 months with each increase in grade level. The average age of twelfth graders was 19 years, 7 months--an average age nearly identical to that reported for this grade placement in 1990.

The other registrant category, as presently defined, is reserved for all school age students, as determined by state law, who do not fall into any of the other grade placements. This category is presumed to contain many nonacademic, multihandicapped registrants. Representing the second largest subgroup reported in this study, other registrants composed 27.8% of all registrants in 1995. Fully 89.9% of these OR students were instructed in day school programs and 8.8% were enrolled in residential schools. Consequently, the number of OR students in days schools outnumbered the OR students in residential schools approximately 10 to 1; in 1990 this ratio was smaller at approximately 8 to 1. Most (1.2%) of the remaining other registrants were served in facilities for the multihandicapped; the total number of OR students served in this program type experienced a 41.6% decrease since 1990. Less than 1.0% of OR students were served in rehabilitation agencies. As a population generally characterized by additional handicaps besides visual impairment, other registrants were predominantly nonreaders; 71.9% lacked a functional reading medium. The number of nonreading OR students grew 24.8% since 1990 from 8,367 to 10,441. Similar percentages of other registrants utilized print, auditory, and readiness materials (8.0%, 8.1%, and 9.1%, respectively); a mere 2.9% used braille as their primary reading medium. Fully 75.4% of OR students in facilities for the multihandicapped, 74.6% of OR students in day school programs, and 66.7% of the small number of OR students in rehabilitation agencies were classified as nonreaders. Other registrants in residential schools showed more variation among the reading medium categories: 44.0% were nonreaders; 19.1% were prereaders; 15.3% were braille readers; 11.4% were print readers; and 10.1% were auditory readers. Similar proportions of OR students were reported at opposite extremes of the visual acuity scale: 23.9% were placed in category I (i.e., the best possible vision within the legal definition of blindness) and 22.4% were reported as totally blind (category IX). However, the majority (61.6%) of these students were reported within the most restrictive visual acuity designations (categories VII-IX); 30.6% were reported within categories I-III--the least restrictive visual acuity range; and 7.8% had acuities within categories IV-VI. Of those OR students with profound visual losses (categories VII-IX), a substantial percentage (77.8%) were nonreaders; 9.5% were auditory readers; 8.0% were prereaders; 4.1% were braille readers; and less than 1.0% were print readers. The majority (61.2%) of OR students with least restrictive visual acuities (categories I-III) were also nonreaders; 22.1% read print or large type; 10.0% used readiness formats; 5.8% were auditory readers; and less than 1.0% were braille readers. Day schools reported 60.8% of their 13,065 OR students within the most restrictive visual acuity categories (IV-IX); 21.1% were totally blind. Residential schools served an OR population with somewhat less visual ability than OR students in day school programs; fully 68.6% had profound visual impairments and 34.5% had no remaining vision. Ironically, there was a greater percentage of visual readers among OR students in residential schools than in day schools despite their greater visual acuity loss: 11.4% of OR pupils in residential schools and 7.8% of OR pupils in day schools were visual readers. Residential schools also reported a smaller percentage of their OR population as nonreaders than did day schools (44.0% and 74.6%, respectively). Residential OR students were more likely to utilize braille, auditory materials, and readiness formats than OR students enrolled in day schools (44.6% versus 17.6%). Conceivably, variables other than visual acuity contributed to the differences in the reading media reported by the two school types. Of the small population of other registrants served in facilities for the multihandicapped, 67.3% had visual acuities of "hand movements" or less and 25.1% fell within categories I-III. Slightly over three-fourths (75.4%) of OR students within this program type were nonreaders. Averaging an age of 13 years, 9 months, the majority (95.7%) of all OR students were between 6 years, 1 month and 22 years of age; 2.8% were 6 years of age or younger; and 1.5% were older than 22 years of age.

In 1995, 14.7% of the total number of registrants in the study were registered as adult students (i.e.,students beyond *typical* school age). As a group they averaged 40 years of age. The distribution of adult students by program type revealed that the majority (65.3%) of these older students were registered through State Departments of Education; in 1990, as much as 71.8% of adult pupils were reported through this account. The decrease in the percentage of adult registrants served in day school programs was countered by the increase in the percentage of adults served by facilities for the multihandicapped--a leap from 13.5% in 1990 to 21.7% in 1995. Specifically, a growth of 83.8% in the actual number of adults served through this agency type was witnessed over a 5-year interval. The remaining adult population were enrolled in either rehabilitation programs (10.9%) or residential schools (2.0%). Of all grade placements, the adult student category comprised the largest percentage of totally blind registrants; 42.4% of this population fell within category IX. Fully 72.6% of all legally blind adults in 1995 had reported visual acuities less than "counts fingers" (categories VII-IX). Day schools which served the greatest number of adult students also served the greatest number of adults with profound visual impairments; 76.9% of adults in day school programs fell within the three most restrictive visual acuity categories; 45.5% had no remaining sight. The vast percentage (73.9%) of adults served in facilities for the multihandicapped were also profoundly impaired; 42.2% were totally blind. To a lesser extent, the majority (58.9%) of adults instructed in residential settings were reported with vision of less than "counts fingers." Interesting, less than half (46.8%) of adults served in rehabilitation programs were classified within the lowest acuity categories (VII-IX). Over half (59.7%) of all adult registrants in the study were described as nonreaders; 21.3% used auditory materials; 8.8% read print; 8.6% read braille; and the remaining percentage were prereaders. Profoundly impaired adults were more likely than adults with moderately severe visual impairments to be reported as nonreaders: 67.8% of adults within categories VII-IX versus 37.1% of adults within categories I-III were classified within this primary reading medium classification. Adults with vision of "hand movements" or less were also more inclined to be tactual readers; 9.5% versus 4.4%. Nearly equal percentages of those at the opposite ends of the visual acuity range were auditory readers: 21.0% (categories VII-IX) compared to 21.4% (categories I-III). A sizable percentage (34.0%) of adults with visual acuity between 20/200 and 8/200 were visual readers and the smallest percentage (3.0%) were prereaders. In contrast, less than 2.0% of those with the most restrictive visual acuities (categories VII-IX) were either visual readers or prereaders. The vast percentage (80.8%) of adults served in facilities for the multihandicapped were classified as nonreaders. To a lesser extent, the majority (62.4%) of adults reported through State Departments of Education was also defined as such. Residential schools differed in that they reported most (28.5%) of their adult students as braille readers; 27.8%

were nonreaders; 26.6% were visual readers; 15.8% read auditory materials; and only 1.3% were defined as prereaders. Rehabilitation agencies, on the other hand, reported most (34.9%) of their adult population as auditory readers; 29.5% read braille; 25.5% read print or large type; 7.0% were nonreaders; and 3.1% were prereaders.

Additional information regarding the distribution and characteristics of legally blind registrants in 1995 can be found in the table-by-table discussion presented in this study. As Wright (1988) anticipated, the definitions of reporting codes established in 1987 have remained stable throughout subsequent years, thus enabling direct comparisons between the 1987 Registration and recent Registration populations.

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Table 1

Distribution of Registrants by Grade Placement, 1987-1995

Year	Infant	Preschool	K-12	Adult student	Postgraduate	Vocational	Acad. non.	Other registrant	TOTAL
1987	2581	3731	15210	4280	91	260	1460	15532	43145
1988	2640	4255	15042	7615	56	219	1528	13466	44821
1989	2980	4255	15576	7429	42	211	1654	14337	46484
1990	3509	4403	15985	8194	24	188	1854	13914	48071
1991	3590	4534	16323	9285	19	184	1908	14237	50080
1992	3636	4682	17007	9382	22	168	2007	14909	51813
1993	4090	5008	17573	9017	14	150	2071	14868	52791
1994	3976	5270	17889	9284	29	140	2437	14551	53576
1995	4129	5518	18656	9207	50	128	2400	14675	54763

Table 2

Grade Placement

Grade Placement	Number of Students
Infant	4114
Preschool	5479
Kindergarten	1520
Grade 1	1546
Grade 2	1484
Grade 3	1451
Grade 4	1458
Grade 5	1476
Grade 6	1468
Grade 7	1416
Grade 8	1399
Grade 9	1353
Grade 10	1259
Grade 11	1116
Grade 12	1063
Academic nongraded	2361
Postgraduate	15
Vocational	126
Adult student	7715
Other registrant	14528
TOTAL	**52347**

Table 3

Program Type

Program Type	Number of Students
State Departments of Education	44865
Residential Schools	4427
Rehabilitation Agencies	1167
Multihandicapped Facilities	1888
TOTAL	**52347**

Table 4

Grade Placement x Program Type

Grade Placement	State Departments	Residential Schools	Rehabilitation Agencies	Multihandicapped Facilities	Total
Infant	3244	631	234	5	4114
Preschool	4995	410	58	16	5479
Kindergarten	1423	96	1	0	1520
Grade 1	1450	94	0	2	1546
Grade 2	1404	80	0	0	1484
Grade 3	1363	86	0	2	1451
Grade 4	1359	98	0	1	1458
Grade 5	1385	90	0	1	1476
Grade 6	1365	103	0	0	1468
Grade 7	1287	128	0	1	1416
Grade 8	1252	145	0	2	1399
Grade 9	1194	159	0	0	1353
Grade 10	1092	166	0	1	1259
Grade 11	953	163	0	0	1116
Grade 12	898	159	0	6	1063
Academic nongraded	2018	338	1	4	2361
Postgraduate	8	7	0	0	15
Vocational	73	30	23	0	126
Adult student	5037	158	844	1676	7715
Other registrant	13065	1286	6	171	14528
TOTAL	**44865**	**4427**	**1167**	**1888**	**52347**

Table 5

Reading Medium

Reading Medium	Number of Students
Visual	13305
Braille	4739
Auditory	3762
Prereader	13007
Nonreader	17534
TOTAL	**52347**

Table 6

Program Type x Reading Medium

	Reading Medium					
Program Type	**Visual**	**Braille**	**Aud.**	**Pre.**	**Non.**	**Total**
State Departments of Education	12027	3418	3011	11213	15196	44865
Residential Schools	993	1042	210	1394	788	4427
Rehabilitation Agencies	216	258	309	321	63	1167
Multihandicapped Facilities	69	21	232	79	1487	1888
TOTAL	**13305**	**4739**	**3762**	**13007**	**17534**	**52347**

Table 7

Grade Placement x Reading Medium

	Reading Medium					
Grade Placement	**Visual**	**Braille**	**Aud.**	**Pre.**	**Non.**	**Total**
Infant	7	26	18	4000	63	4114
Preschool	25	36	18	5305	95	5479
Kindergarten	330	172	13	815	190	1520
Grade 1	640	280	23	428	175	1546
Grade 2	800	241	42	276	125	1484
Grade 3	885	267	41	136	122	1451
Grade 4	939	269	47	74	129	1458
Grade 5	974	258	70	52	122	1476
Grade 6	963	303	61	38	103	1468
Grade 7	981	277	59	33	66	1416
Grade 8	954	263	65	23	94	1399
Grade 9	920	255	67	25	86	1353
Grade 10	847	275	75	15	47	1259
Grade 11	754	229	55	17	61	1116
Grade 12	694	212	75	13	69	1063
Academic nongraded	683	267	185	299	927	2361
Postgraduate	11	1	1	2	0	15
Vocational	53	24	29	4	16	126
Adult student	676	660	1645	131	4603	7715
Other registrant	1169	424	1173	1321	10441	14528
TOTAL	**13305**	**4739**	**3762**	**13007**	**17534**	**52347**

Table 8

Program Type x Grade Placement x Reading Medium

			Reading Medium			
Program Type **Grade Placement**	**Visual**	**Braille**	**Aud.**	**Pre.**	**Non.**	**Total**
State Department						
Infant	7	24	17	3178	18	3244
Preschool	25	30	18	4840	82	4995
Kindergarten	317	141	12	772	181	1423
Grade 1	611	239	22	411	167	1450
Grade 2	771	216	40	258	119	1404
Grade 3	847	226	40	132	118	1363
Grade 4	903	224	47	66	119	1359
Grade 5	927	219	69	49	121	1385
Grade 6	915	256	59	38	97	1365
Grade 7	929	211	59	27	61	1287
Grade 8	879	204	64	19	86	1252
Grade 9	830	199	65	22	78	1194
Grade 10	759	206	71	11	45	1092
Grade 11	672	169	53	9	50	953
Grade 12	613	140	73	8	64	898
Academic nongraded	593	135	152	248	890	2018
Postgraduate	6	0	1	1	0	8
Vocational	37	7	14	2	13	73
Adult student	368	346	1109	69	3145	5037
Other registrant	1018	226	1026	1053	9742	13065
Subtotal	**12027**	**3418**	**3011**	**11213**	**15196**	**44865**
Residential						
Infant	0	2	0	584	45	631
Preschool	0	6	0	391	13	410
Kindergarten	13	31	1	42	9	96
Grade 1	27	41	1	17	8	94
Grade 2	29	25	2	18	6	80
Grade 3	37	41	1	3	4	86
Grade 4	35	45	0	8	10	98
Grade 5	46	39	1	3	1	90
Grade 6	48	47	2	0	6	103
Grade 7	52	66	0	6	4	128
Grade 8	73	59	1	4	8	145
Grade 9	90	56	2	3	8	159
Grade 10	87	69	4	4	2	166
Grade 11	82	60	2	8	11	163
Grade 12	77	71	2	5	4	159
Academic nongraded	88	132	33	49	36	338
Postgraduate	5	1	0	1	0	7
Vocational	15	9	3	0	3	30
Adult student	42	45	25	2	44	158
Other registrant	147	197	130	246	566	1286
Subtotal	**993**	**1042**	**210**	**1394**	**788**	**4427**

Table 8 (continued)

Program Type x Grade Placement x Reading Medium

			Reading Medium			
Program Type **Grade Placement**	**Visual**	**Braille**	**Aud.**	**Pre.**	**Non.**	**Total**
Rehabilitation						
Infant	0	0	1	233	0	234
Preschool	0	0	0	58	0	58
Kindergarten	0	0	0	1	0	1
Grade 1	0	0	0	0	0	0
Grade 2	0	0	0	0	0	0
Grade 3	0	0	0	0	0	0
Grade 4	0	0	0	0	0	0
Grade 5	0	0	0	0	0	0
Grade 6	0	0	0	0	0	0
Grade 7	0	0	0	0	0	0
Grade 8	0	0	0	0	0	0
Grade 9	0	0	0	0	0	0
Grade 10	0	0	0	0	0	0
Grade 11	0	0	0	0	0	0
Grade 12	0	0	0	0	0	0
Academic nongraded	0	0	0	1	0	1
Postgraduate	0	0	0	0	0	0
Vocational	1	8	12	2	0	23
Adult student	215	249	295	26	59	844
Other registrant	0	1	1	0	4	6
Subtotal	**216**	**258**	**309**	**321**	**63**	**1167**
Multihandicapped						
Infant	0	0	0	5	0	5
Preschool	0	0	0	16	0	16
Kindergarten	0	0	0	0	0	0
Grade 1	2	0	0	0	0	2
Grade 2	0	0	0	0	0	0
Grade 3	1	0	0	1	0	2
Grade 4	1	0	0	0	0	1
Grade 5	1	0	0	0	0	1
Grade 6	0	0	0	0	0	0
Grade 7	0	0	0	0	1	1
Grade 8	2	0	0	0	0	2
Grade 9	0	0	0	0	0	0
Grade 10	1	0	0	0	0	1
Grade 11	0	0	0	0	0	0
Grade 12	4	1	0	0	1	6
Academic nongraded	2	0	0	1	1	4
Postgraduate	0	0	0	0	0	0
Vocational	0	0	0	0	0	0
Adult student	51	20	216	34	1355	1676
Other registrant	4	0	16	22	129	171
Subtotal	**69**	**21**	**232**	**79**	**1487**	**1888**
TOTAL	**13305**	**4739**	**3762**	**13007**	**17534**	**52347**

Table 9

Visual Acuity

Visual Acuity	Number of Students
I	16848
II	1376
III	4184
IV	1577
V	346
VI	2566
VII	6046
VIII	9203
IX	10201
TOTAL	**52347**

Table 10

Program Type x Visual Acuity

	Visual Acuity									
Program Type	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**Total**
State Departments of Education	15254	1183	3616	1304	286	2224	5107	7725	8166	44865
Residential Schools	979	149	388	205	46	207	506	943	1004	4427
Rehabilitation Agencies	275	22	109	47	9	81	143	216	265	1167
Multihandicapped Facilities	340	22	71	21	5	54	290	319	766	1888
TOTAL	**16848**	**1376**	**4184**	**1577**	**346**	**2566**	**6046**	**9203**	**10201**	**52347**

Table 11

Grade Placement x Visual Acuity

	Visual Acuity									
Grade Placement	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**Total**
Infant	971	42	135	70	44	278	923	1099	552	4114
Preschool	1581	110	283	162	39	338	907	1209	850	5479
Kindergarten	600	58	163	64	13	73	150	218	181	1520
Grade 1	644	69	183	64	6	73	136	189	182	1546
Grade 2	721	57	179	62	15	70	83	150	147	1484
Grade 3	725	54	207	59	10	65	55	123	153	1451
Grade 4	749	81	191	56	13	48	61	123	136	1458
Grade 5	763	77	202	59	18	57	52	111	137	1476
Grade 6	775	76	186	68	4	39	51	127	142	1468
Grade 7	769	60	195	56	10	48	48	85	145	1416
Grade 8	723	77	187	48	11	56	41	126	130	1399
Grade 9	691	69	208	50	13	46	45	97	134	1353
Grade 10	654	70	180	43	11	47	42	86	126	1259
Grade 11	572	53	160	39	10	43	37	87	115	1116
Grade 12	511	61	144	43	8	42	44	96	114	1063
Academic nongraded	684	73	195	106	12	266	222	386	417	2361
Postgraduate	7	3	2	1	0	0	1	0	1	15
Vocational	42	3	23	12	4	4	8	11	19	126
Adult student	1196	75	390	125	30	301	1034	1296	3268	7715
Other registrant	3470	208	771	390	75	672	2106	3584	3252	14528
TOTAL	**16848**	**1376**	**4184**	**1577**	**346**	**2566**	**6046**	**9203**	**10201**	**52347**

Table 12

Program Type x Grade Placement x Visual Acuity

					Visual Acuity					
Program Type Grade Placement	I	II	III	IV	V	VI	VII	VIII	IX	Total
State Department										
Infant	756	35	115	63	36	248	682	827	482	3244
Preschool	1493	104	257	151	37	321	809	1070	753	4995
Kindergarten	585	57	149	60	13	61	145	197	156	1423
Grade 1	625	66	175	61	6	67	129	158	163	1450
Grade 2	699	55	169	55	15	65	79	136	131	1404
Grade 3	708	48	197	55	7	60	49	106	133	1363
Grade 4	723	73	181	51	11	43	59	103	115	1359
Grade 5	731	71	192	55	15	52	50	98	121	1385
Grade 6	744	72	169	62	3	34	49	108	124	1365
Grade 7	729	55	177	45	9	44	38	67	123	1287
Grade 8	680	67	163	40	9	45	32	107	109	1252
Grade 9	635	61	181	38	12	37	39	80	111	1194
Grade 10	598	56	155	31	9	37	35	64	107	1092
Grade 11	517	42	137	31	10	33	27	65	91	953
Grade 12	466	47	126	31	5	30	36	75	82	898
Academic nongraded	623	58	166	75	9	247	198	336	306	2018
Postgraduate	2	2	2	0	0	0	1	0	1	8
Vocational	29	2	12	5	0	2	6	5	12	73
Adult student	653	38	214	59	17	185	683	897	2291	5037
Other registrant	3258	174	679	336	63	613	1961	3226	2755	13065
Subtotal	**15254**	**1183**	**3616**	**1304**	**286**	**2224**	**5107**	**7725**	**8166**	**44865**
Residential										
Infant	174	7	17	6	7	17	175	179	49	631
Preschool	78	6	24	11	2	13	83	113	80	410
Kindergarten	14	1	14	4	0	12	5	21	25	96
Grade 1	18	3	7	3	0	6	7	31	19	94
Grade 2	22	2	10	7	0	5	4	14	16	80
Grade 3	16	6	10	4	3	5	6	16	20	86
Grade 4	26	7	10	5	2	5	2	20	21	98
Grade 5	31	6	10	4	3	5	2	13	16	90
Grade 6	31	4	17	6	1	5	2	19	18	103
Grade 7	39	5	18	11	1	4	10	18	22	128
Grade 8	42	9	24	8	2	11	9	19	21	145
Grade 9	56	8	27	12	1	9	6	17	23	159
Grade 10	55	14	25	12	2	10	7	22	19	166
Grade 11	55	11	23	8	0	10	10	22	24	163
Grade 12	43	13	17	12	3	12	8	20	31	159
Academic nongraded	59	15	29	31	3	17	23	50	111	338
Postgraduate	5	1	0	1	0	0	0	0	0	7
Vocational	8	0	4	5	2	1	2	4	4	30
Adult student	25	1	21	4	4	10	19	33	41	158
Other registrant	182	30	81	51	10	50	126	312	444	1286
Subtotal	**979**	**149**	**388**	**205**	**46**	**207**	**506**	**943**	**1004**	**4427**

Table 12 (continued)

Program Type x Grade Placement x Visual Acuity

	Visual Acuity									
Program Type Grade Placement	I	II	III	IV	V	VI	VII	VIII	IX	Total
Rehabilitation										
Infant	40	0	3	1	1	13	63	92	21	234
Preschool	7	0	2	0	0	4	12	22	11	58
Kindergarten	1	0	0	0	0	0	0	0	0	1
Grade 1	0	0	0	0	0	0	0	0	0	0
Grade 2	0	0	0	0	0	0	0	0	0	0
Grade 3	0	0	0	0	0	0	0	0	0	0
Grade 4	0	0	0	0	0	0	0	0	0	0
Grade 5	0	0	0	0	0	0	0	0	0	0
Grade 6	0	0	0	0	0	0	0	0	0	0
Grade 7	0	0	0	0	0	0	0	0	0	0
Grade 8	0	0	0	0	0	0	0	0	0	0
Grade 9	0	0	0	0	0	0	0	0	0	0
Grade 10	0	0	0	0	0	0	0	0	0	0
Grade 11	0	0	0	0	0	0	0	0	0	0
Grade 12	0	0	0	0	0	0	0	0	0	0
Academic nongraded	0	0	0	0	0	1	0	0	0	1
Postgraduate	0	0	0	0	0	0	0	0	0	0
Vocational	5	1	7	2	2	1	0	2	3	23
Adult student	220	21	97	43	6	62	68	98	229	844
Other registrant	2	0	0	1	0	0	0	2	1	6
Subtotal	**275**	**22**	**109**	**47**	**9**	**81**	**143**	**216**	**265**	**1167**
Multihandicapped										
Infant	1	0	0	0	0	0	3	1	0	5
Preschool	3	0	0	0	0	0	3	4	6	16
Kindergarten	0	0	0	0	0	0	0	0	0	0
Grade 1	1	0	1	0	0	0	0	0	0	2
Grade 2	0	0	0	0	0	0	0	0	0	0
Grade 3	1	0	0	0	0	0	0	1	0	2
Grade 4	0	1	0	0	0	0	0	0	0	1
Grade 5	1	0	0	0	0	0	0	0	0	1
Grade 6	0	0	0	0	0	0	0	0	0	0
Grade 7	1	0	0	0	0	0	0	0	0	1
Grade 8	1	1	0	0	0	0	0	0	0	2
Grade 9	0	0	0	0	0	0	0	0	0	0
Grade 10	1	0	0	0	0	0	0	0	0	1
Grade 11	0	0	0	0	0	0	0	0	0	0
Grade 12	2	1	1	0	0	0	0	1	1	6
Academic nongraded	2	0	0	0	0	1	1	0	0	4
Postgraduate	0	0	0	0	0	0	0	0	0	0
Vocational	0	0	0	0	0	0	0	0	0	0
Adult student	298	15	58	19	3	44	264	268	707	1676
Other registrant	28	4	11	2	2	9	19	44	52	171
Subtotal	**340**	**22**	**71**	**21**	**5**	**54**	**290**	**319**	**766**	**1888**
TOTAL	**16848**	**1376**	**4184**	**1577**	**346**	**2566**	**6046**	**9203**	**10201**	**52347**

Table 13

Visual Acuity x Reading Medium

	Reading Medium					
Visual Acuity	**Visual**	**Braille**	**Aud.**	**Pre.**	**Non.**	**Total**
I	8982	243	682	3740	3201	16848
II	841	53	61	261	160	1376
III	2208	280	267	749	680	4184
IV	524	221	130	363	339	1577
V	64	74	34	106	68	346
VI	451	278	132	865	840	2566
VII	235	340	403	2235	2833	6046
VIII	0	1240	885	2812	4266	9203
IX	0	2010	1168	1876	5147	10201
TOTAL	**13305**	**4739**	**3762**	**13007**	**17534**	**52347**

Table 14

Grade Placement x Reading Medium x Visual Acuity

	Visual Acuity									
Grade Placement Reading Medium	I	II	III	IV	V	VI	VII	VIII	IX	Total
Infant										
Visual	3	0	0	1	0	2	1	0	0	7
Braille	1	0	0	0	1	5	3	8	8	26
Auditory	1	0	1	0	0	1	5	4	6	18
Prereader	927	42	132	68	43	268	907	1079	534	4000
Nonreader	39	0	2	1	0	2	7	8	4	63
Subtotal	**971**	**42**	**135**	**70**	**44**	**278**	**923**	**1099**	**552**	**4114**
Preschool										
Visual	18	0	2	1	0	0	4	0	0	25
Braille	3	1	3	0	0	2	3	10	14	36
Auditory	4	0	0	0	0	0	4	5	5	18
Prereader	1538	106	274	160	38	336	879	1162	812	5305
Nonreader	18	3	4	1	1	0	17	32	19	95
Subtotal	**1581**	**110**	**283**	**162**	**39**	**338**	**907**	**1209**	**850**	**5479**
Kindergarten										
Visual	217	13	52	12	3	12	21	0	0	330
Braille	11	8	11	9	4	11	16	42	60	172
Auditory	2	1	1	0	1	0	1	2	5	13
Prereader	319	32	94	40	4	42	72	118	94	815
Nonreader	51	4	5	3	1	8	40	56	22	190
Subtotal	**600**	**58**	**163**	**64**	**13**	**73**	**150**	**218**	**181**	**1520**
Grade 1										
Visual	404	48	104	35	3	28	18	0	0	640
Braille	22	2	15	9	2	14	19	94	103	280
Auditory	2	1	6	3	0	0	1	3	7	23
Prereader	167	17	47	10	1	22	65	54	45	428
Nonreader	49	1	11	7	0	9	33	38	27	175
Subtotal	**644**	**69**	**183**	**64**	**6**	**73**	**136**	**189**	**182**	**1546**
Grade 2										
Visual	547	45	123	30	8	34	13	0	0	800
Braille	17	3	19	14	2	11	17	72	86	241
Auditory	8	0	5	4	1	2	6	8	8	42
Prereader	122	8	26	11	3	18	26	33	29	276
Nonreader	27	1	6	3	1	5	21	37	24	125
Subtotal	**721**	**57**	**179**	**62**	**15**	**70**	**83**	**150**	**147**	**1484**
Grade 3										
Visual	605	45	160	28	4	31	12	0	0	885
Braille	11	3	18	14	5	21	17	68	110	267
Auditory	7	1	6	6	0	2	3	8	8	41
Prereader	71	2	18	6	0	7	8	12	12	136
Nonreader	31	3	5	5	1	4	15	35	23	122
Subtotal	**725**	**54**	**207**	**59**	**10**	**65**	**55**	**123**	**153**	**1451**

Table 14 (continued)

Grade Placement x Reading Medium x Visual Acuity

	Visual Acuity									
Grade Placement Reading Medium	I	II	III	IV	V	VI	VII	VIII	IX	Total
Grade 4										
Visual	659	72	146	29	3	21	9	0	0	939
Braille	15	4	22	16	6	20	17	74	95	269
Auditory	14	1	5	5	2	1	8	3	8	47
Prereader	33	1	9	3	2	2	7	11	6	74
Nonreader	28	3	9	3	0	4	20	35	27	129
Subtotal	**749**	**81**	**191**	**56**	**13**	**48**	**61**	**123**	**136**	**1458**
Grade 5										
Visual	672	64	164	28	6	30	10	0	0	974
Braille	17	4	14	21	11	17	13	69	92	258
Auditory	16	5	9	6	0	3	4	11	16	70
Prereader	21	3	6	3	0	4	2	7	6	52
Nonreader	37	1	9	1	1	3	23	24	23	122
Subtotal	**763**	**77**	**202**	**59**	**18**	**57**	**52**	**111**	**137**	**1476**
Grade 6										
Visual	691	62	142	41	2	19	6	0	0	963
Braille	17	8	15	23	1	14	26	85	114	303
Auditory	16	4	14	3	0	1	3	15	5	61
Prereader	22	2	8	0	0	1	0	2	3	38
Nonreader	29	0	7	1	1	4	16	25	20	103
Subtotal	**775**	**76**	**186**	**68**	**4**	**39**	**51**	**127**	**142**	**1468**
Grade 7										
Visual	710	52	156	34	2	22	5	0	0	981
Braille	11	4	21	15	6	12	24	72	112	277
Auditory	13	3	13	6	1	3	3	3	14	59
Prereader	18	1	2	0	0	5	3	1	3	33
Nonreader	17	0	3	1	1	6	13	9	16	66
Subtotal	**769**	**60**	**195**	**56**	**10**	**48**	**48**	**85**	**145**	**1416**
Grade 8										
Visual	657	72	154	32	3	28	8	0	0	954
Braille	25	0	17	7	5	18	16	85	90	263
Auditory	16	3	7	7	2	2	2	9	17	65
Prereader	8	2	4	0	0	2	3	2	2	23
Nonreader	17	0	5	2	1	6	12	30	21	94
Subtotal	**723**	**77**	**187**	**48**	**11**	**56**	**41**	**126**	**130**	**1399**
Grade 9										
Visual	635	63	159	30	2	23	8	0	0	920
Braille	9	3	20	15	5	12	19	70	102	255
Auditory	14	0	15	3	4	3	9	5	14	67
Prereader	13	2	5	1	2	1	0	0	1	25
Nonreader	20	1	9	1	0	7	9	22	17	86
Subtotal	**691**	**69**	**208**	**50**	**13**	**46**	**45**	**97**	**134**	**1353**

Table 14 (continued)

Grade Placement x Reading Medium x Visual Acuity

Grade Placement Reading Medium					Visual Acuity					
	I	II	III	IV	V	VI	VII	VIII	IX	Total
Grade 10										
Visual	598	61	138	20	4	21	5	0	0	847
Braille	12	3	18	18	7	19	24	65	109	275
Auditory	25	3	15	5	0	4	7	8	8	75
Prereader	7	1	5	0	0	0	1	1	0	15
Nonreader	12	2	4	0	0	3	5	12	9	47
Subtotal	**654**	**70**	**180**	**43**	**11**	**47**	**42**	**86**	**126**	**1259**
Grade 11										
Visual	524	48	133	21	2	21	5	0	0	754
Braille	8	0	16	14	7	16	22	58	88	229
Auditory	15	3	5	1	1	4	3	10	13	55
Prereader	11	1	3	0	0	0	1	1	0	17
Nonreader	14	1	3	3	0	2	6	18	14	61
Subtotal	**572**	**53**	**160**	**39**	**10**	**43**	**37**	**87**	**115**	**1116**
Grade 12										
Visual	463	57	122	23	3	23	3	0	0	694
Braille	3	2	6	12	4	12	19	65	89	212
Auditory	27	1	10	6	1	3	5	11	11	75
Prereader	6	1	3	1	0	1	1	0	0	13
Nonreader	12	0	3	1	0	3	16	20	14	69
Subtotal	**511**	**61**	**144**	**43**	**8**	**42**	**44**	**96**	**114**	**1063**
Academic nongraded										
Visual	423	45	98	54	1	43	19	0	0	683
Braille	6	1	12	12	3	18	10	75	130	267
Auditory	48	4	15	5	2	9	19	35	48	185
Prereader	72	12	29	8	1	46	37	35	59	299
Nonreader	135	11	41	27	5	150	137	241	180	927
Subtotal	**684**	**73**	**195**	**106**	**12**	**266**	**222**	**386**	**417**	**2361**
Postgraduate										
Visual	6	3	2	0	0	0	0	0	0	11
Braille	0	0	0	1	0	0	0	0	0	1
Auditory	0	0	0	0	0	0	1	0	0	1
Prereader	1	0	0	0	0	0	0	0	1	2
Nonreader	0	0	0	0	0	0	0	0	0	0
Subtotal	**7**	**3**	**2**	**1**	**0**	**0**	**1**	**0**	**1**	**15**
Vocational										
Visual	32	1	12	6	2	0	0	0	0	53
Braille	1	1	3	1	1	2	2	5	8	24
Auditory	4	1	4	3	1	1	1	4	10	29
Prereader	2	0	1	0	0	0	0	1	0	4
Nonreader	3	0	3	2	0	1	5	1	1	16
Subtotal	**42**	**3**	**23**	**12**	**4**	**4**	**8**	**11**	**19**	**126**

Table 14 (continued)

Grade Placement x Reading Medium x Visual Acuity

	Visual Acuity									
Grade Placement **Reading Medium**	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**Total**
Adult student										
Visual	399	34	132	37	9	38	27	0	0	676
Braille	35	3	35	15	1	39	46	100	386	660
Auditory	256	17	83	36	13	65	155	361	659	1645
Prereader	37	1	12	3	1	6	25	18	28	131
Nonreader	469	20	128	34	6	153	781	817	2195	4603
Subtotal	**1196**	**75**	**390**	**125**	**30**	**301**	**1034**	**1296**	**3268**	**7715**
Other registrants										
Visual	719	56	209	62	7	55	61	0	0	1169
Braille	19	3	15	5	3	15	27	123	214	424
Auditory	194	13	53	31	5	28	163	380	306	1173
Prereader	345	27	71	49	11	104	198	275	241	1321
Nonreader	2193	109	423	243	49	470	1657	2806	2491	10441
Subtotal	**3470**	**208**	**771**	**390**	**75**	**672**	**2106**	**3584**	**3252**	**14528**
TOTAL	**16848**	**1376**	**4184**	**1577**	**346**	**2566**	**6046**	**9203**	**10201**	**52347**

Table 15

Program Type x Reading Medium x Visual Acuity

	Visual Acuity									
Program Type Reading medium	I	II	III	IV	V	VI	VII	VIII	IX	Total
State Departments										
Visual	8280	725	1947	434	53	378	210	0	0	12027
Braille	192	42	203	154	56	195	228	887	1461	3418
Auditory	507	47	209	88	25	92	354	739	950	3011
Prereader	3364	231	659	327	90	784	1867	2304	1587	11213
Nonreader	2911	138	598	301	62	775	2448	3795	4168	15196
Subtotal	**15254**	**1183**	**3616**	**1304**	**286**	**2224**	**5107**	**7725**	**8166**	**44865**
Residential Schools										
Visual	528	100	212	75	9	54	15	0	0	993
Braille	33	10	61	61	16	67	86	298	410	1042
Auditory	24	3	13	12	3	5	17	65	68	210
Prereader	300	29	75	33	15	52	276	375	239	1394
Nonreader	94	7	27	24	3	29	112	205	287	788
Subtotal	**979**	**149**	**388**	**205**	**46**	**207**	**506**	**943**	**1004**	**4427**
Rehabilitation Agencies										
Visual	132	9	45	12	2	9	7	0	0	216
Braille	18	1	14	5	2	16	23	50	129	258
Auditory	59	10	37	27	4	32	25	41	74	309
Prereader	53	1	11	3	1	20	83	116	33	321
Nonreader	13	1	2	0	0	4	5	9	29	63
Subtotal	**275**	**22**	**109**	**47**	**9**	**81**	**143**	**216**	**265**	**1167**
Multihandicapped Facilities										
Visual	42	7	4	3	0	10	3	0	0	69
Braille	0	0	2	1	0	0	3	5	10	21
Auditory	92	1	8	3	2	3	7	40	76	232
Prereader	23	0	4	0	0	9	9	17	17	79
Nonreader	183	14	53	14	3	32	268	257	663	1487
Subtotal	**340**	**22**	**71**	**21**	**5**	**54**	**290**	**319**	**766**	**1888**
TOTAL	**16848**	**1376**	**4184**	**1577**	**346**	**2566**	**6046**	**9203**	**10201**	**52347**

Table 16

Program Type x Average Age

Program Type	Average Age (months)
State Departments of Education	175
Residential Schools	158
Rehabilitation Agencies	389
Multihandicapped Facilities	467

Table 17

Grade Placement x Average Age

Grade Placement	Average Age (months)
Infant	41
Preschool	69
Kindergarten	88
Grade 1	102
Grade 2	114
Grade 3	126
Grade 4	137
Grade 5	149
Grade 6	162
Grade 7	174
Grade 8	186
Grade 9	198
Grade 10	211
Grade 11	222
Grade 12	235
Academic nongraded	158
Postgraduate	249
Vocational	272
Adult student	480
Other registrants	165

Table 18

OR Students x Age x Program Type

Age (months)	State Departments	Residential Schools	Rehabilitation Programs	Multihandicapped Facilities	Total
0-24	5	0	0	0	5
25-48	52	0	2	1	55
49-72	332	12	0	0	344
73-96	1163	85	0	6	1254
97-120	1771	102	0	7	1880
121-144	1969	139	0	17	2125
145-168	1887	173	0	23	2083
169-192	1811	185	0	19	2015
193-216	1505	198	0	19	1722
217-240	1278	193	2	46	1519
241-264	1103	171	1	33	1308
265-384	186	28	0	0	214
385-504	1	0	0	0	1
505-624	1	0	0	0	1
625-744	1	0	1	0	2
TOTAL	**13065**	**1286**	**6**	**171**	**14528**

Table 19

Reading Medium x Average Age

Reading Medium	Average Age (months)
Visual	181
Braille	204
Auditory	324
Prereader	78
Nonreader	245

Table 20

Visual Acuity x Average Age

Visual Acuity	Average Age (months)
I	167
II	169
III	183
IV	170
V	165
VI	170
VII	182
VIII	174
IX	255

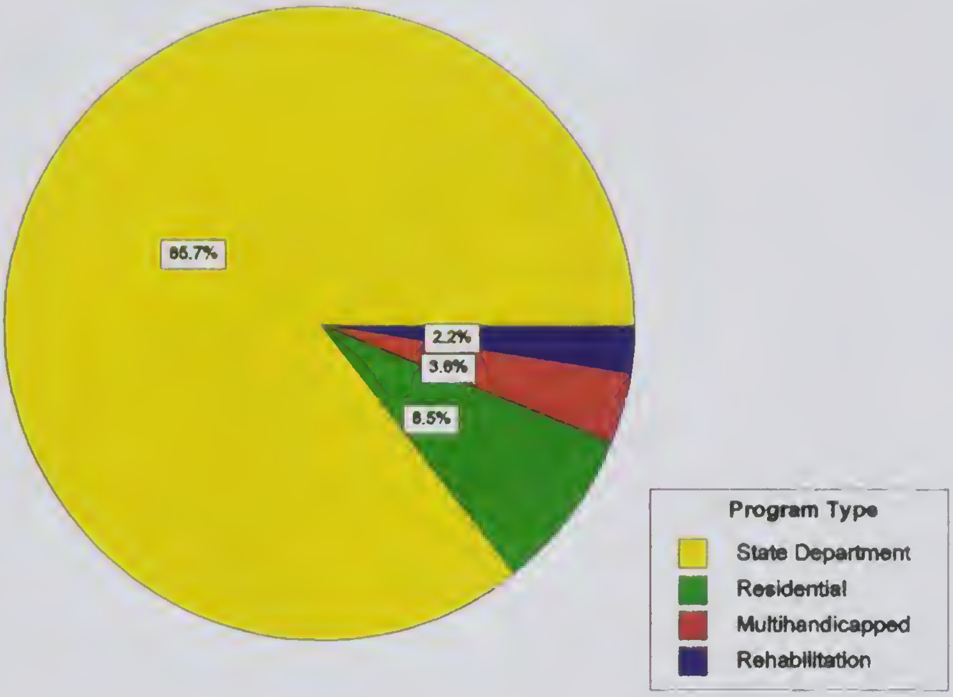

Figure 1. Distribution of quota registrants according to program type as reported in 1995.

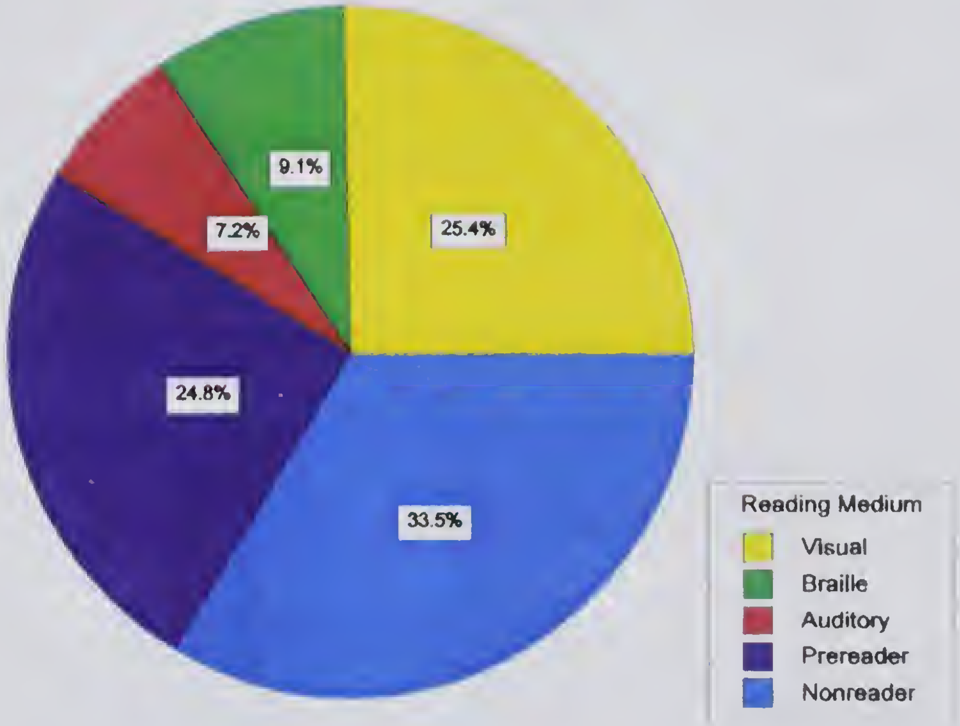

Figure 2. Distribution of quota registrants according to primary reading medium as reported in 1995.

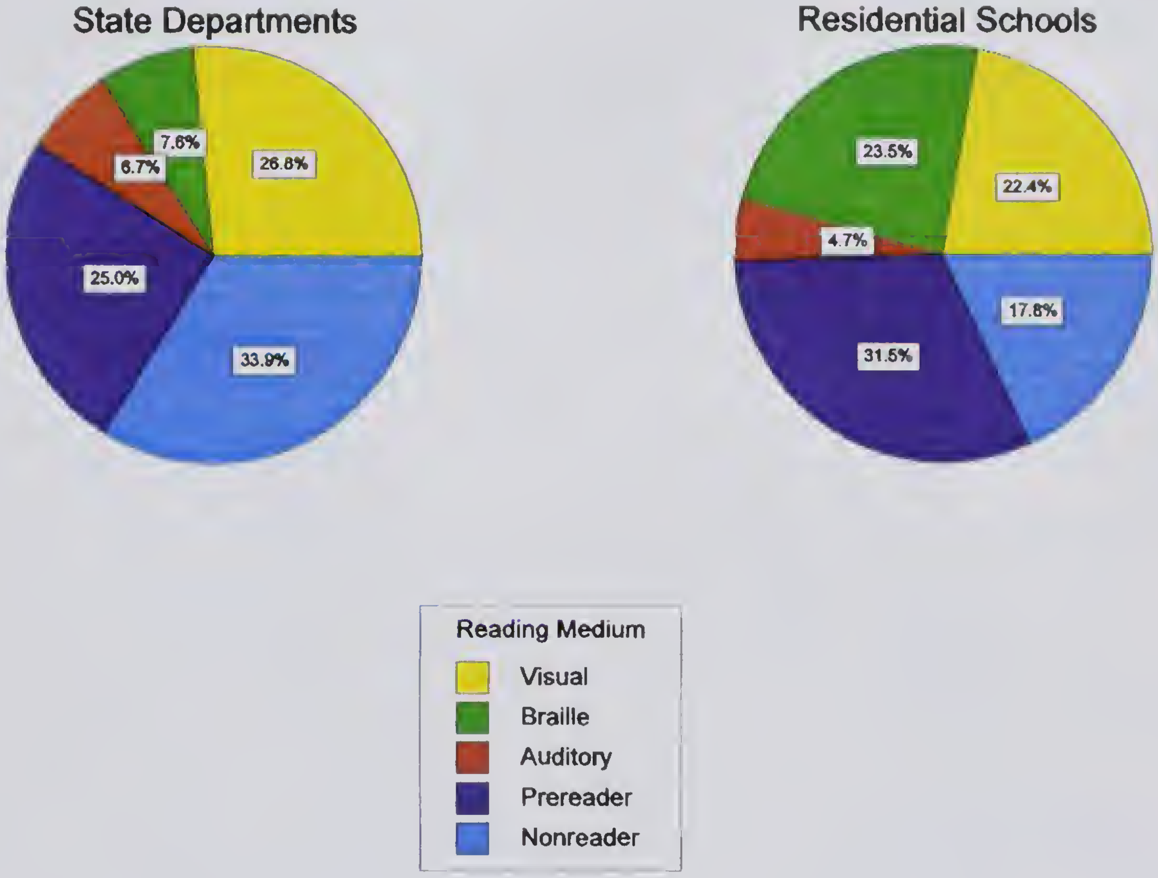

Figure 3. Distribution of quota registrants according to primary reading medium and program type as reported in 1995: Day school students (i.e., students reported through State Departments of Education) and residential students compared.

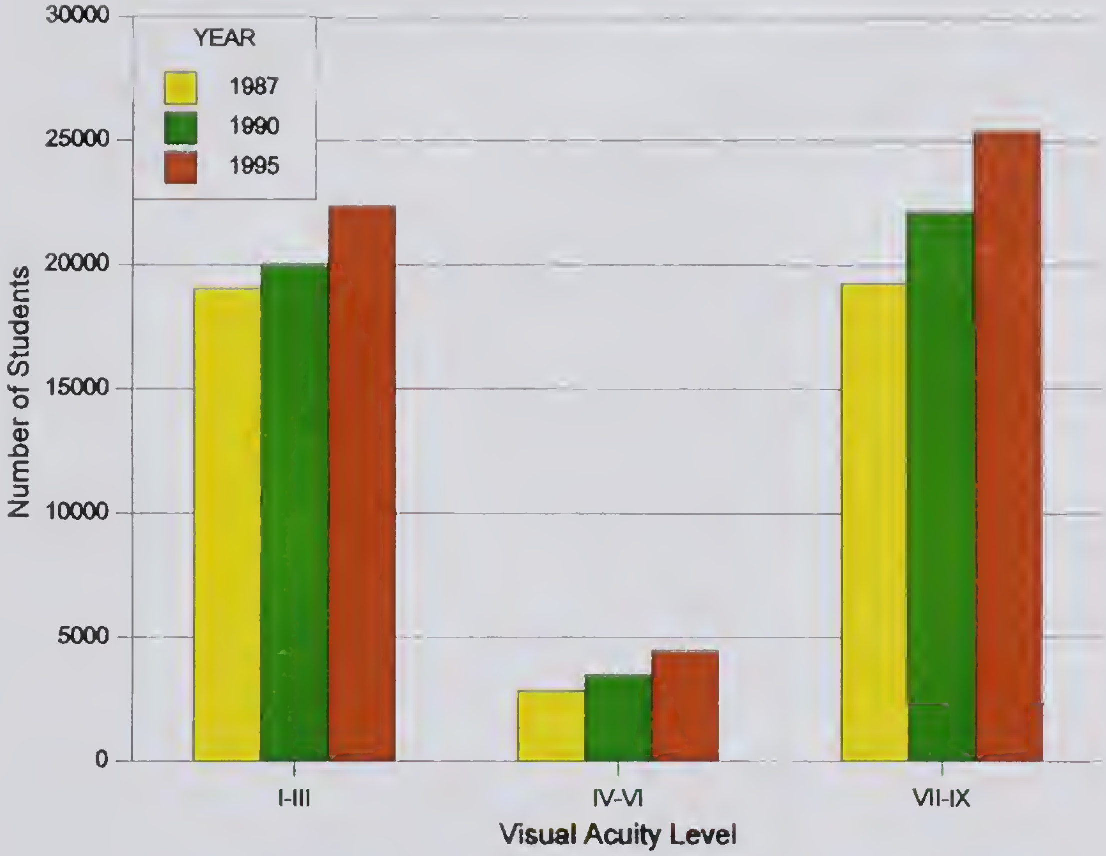

Figure 4. Total number of students within each grouping of visual acuity categories as reported in 1987, 1990, and 1995. Categories I-III indicate a moderately severe visual loss; categories IV-VI indicate a severe visual loss; and categories VII-IX indicate a profound visual loss.

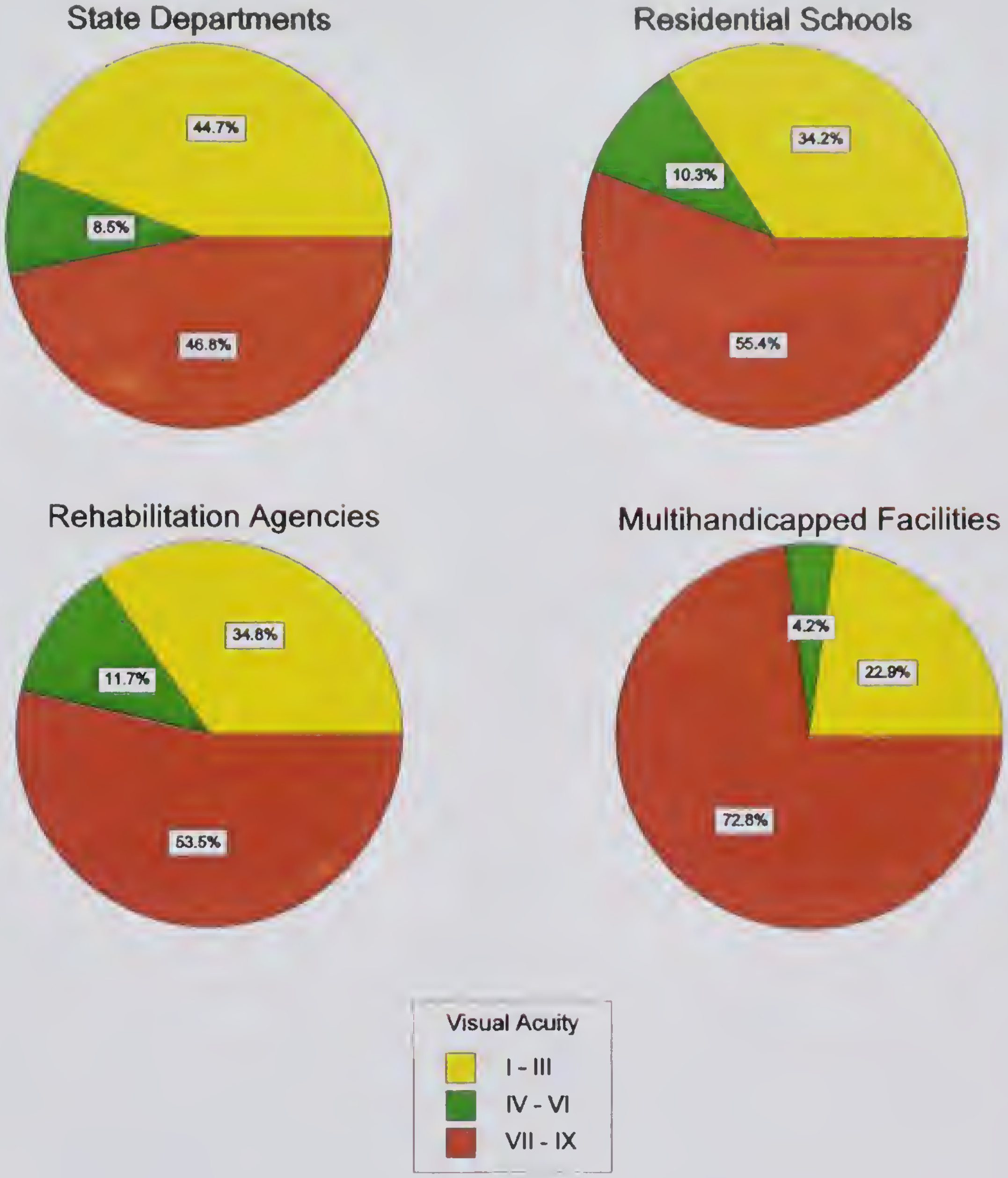

Figure 5. Distribution of students according to program type and visual acuity level as reported in 1995. Visual acuity categories I-III indicate a moderately severe visual loss; categories IV-VI indicate a severe visual loss; and categories VII-IX indicate a profound visual loss.

Appendix

Program Type--4 categories

- Day school programs (i.e., programs reporting through State Departments of Education)
- Residential schools for the blind
- Rehabilitation agencies
- Multihandicapped facilities

Grade Placement--20 categories

Preschool and school age students:

Infants (IP)	children being served by infant programs
Preschool (PS)	children being served by preschool programs
Kindergarten (KG)	children enrolled in kindergarten classes
Grades 1-12	students of school age, as determined by state law, in regular academic grades 1 through 12
Academic nongraded (AN)	students of school age, as determined by state law, who are working to establish grade placement in an academic program (e.g., students who are working to acquire skills necessary for placement in a regular grade)
Vocational (VO)	students of school age, as determined by state law, who are in vocational training (e.g., students enrolled in a program which is designed to lead to independent employment). This does not include multihandicapped students in prevocational programs or classes.
Postgraduate (PG)	students of school age, as determined by state law, in postgraduate high school programs, studying at less than college level
Other registrant (OR)	Students of school age, as determined by state law, who do not fall into any of the above placements (e.g., students in prevocational and other classes for *nonacademic* students)

Adult students

Adult student (AD)	adults above school age, as determined by state law, in educational programs of less than college level

Appendix (continued)

Reading Medium--5 categories

Visual readers (V)	students primarily using print in their studies
Braille readers (B)	students primarily using braille in their studies
Auditory readers (A)	students primarily using a reader or auditory materials in their studies
Prereaders (P)	students working on or toward a readiness level (e.g., all infants and preschoolers; older students with reading potential)
Nonreaders (N)	nonreading students; students who show no reading potential; students who do not fall into any of the above categories

Visual Acuity--9 categories

I ... 20/200-18/200
II .. 17/200-13/200
III . 12/200-8/200
IV.. 7/200-3/200
V .. 2.5/200-.4/200
VI ... counts fingers
VII .. hand movements, form and object perception
VIII..light projection and perception
IX ... totally blind (nil)